Social Identity and Ability Grouping in a Secondary School

McManus, Jill Elizabeth
Institute of Education
University of London
2010

Abstract

Ability-grouped systems tend to produce similar effects on pupil attainment and attitudes wherever they are used. This indicates that common underlying processes may be operating.

The theory developed here brings together ideas about group identity, stereotyping, responses to stigmatised identities, and motivation to learn, to explain how allocation to a particular ability group affects pupils. It suggests that when pupils are placed in lower or middle ability groups they rapidly adopt a social identity which is stigmatised with respect to the academic aims of the school. This then triggers negative responses including the adoption of helpless learning behaviours which impact on classroom interactions and academic attainment. In proposing the view that pupils' social identity is a critical factor, this theory challenges the widely-held assumption that ability-group characteristics emerge simply as responses to pupils' experiences of differential treatment in schools and classrooms.

Evidence is drawn from a longitudinal case study of a single secondary school which was changing from a banded to a mixed ability system and follows the progress of consecutive cohorts of pupils through KS3 and KS4. Pupils' identities and experiences were accessed through questionnaires, interviews, observations, and school performance and pastoral data.

Interviews shortly after transfer to secondary school revealed strongly established identities with lower and middle ability pupils in the banded cohort describing predominantly negative characteristics, whilst higher ability self-descriptions were predominantly positive. Low and middle ability pupils in the banded system made less academic progress and had poorer behaviour and attendance than either higher ability banded pupils or similar mixed ability pupils.

Contents

Chapter 3: Ability grouping

Chapter 4: Social Identity Theory

Chapter 8: Impact on pupils

List of Tables

List of figures

List of Appendices

Declaration of word count

The exact number of words in this thesis is 79896.   The bibliography and appendices are excluded from this word count.

Declaration of own work

I hereby declare that, except where explicit attribution is made, the work presented in this thesis is entirely my own.

Signed ....J. McManus........

Chapter 1   Introduction

1.1 Introduction

Some years ago I was carrying out some preparatory work for an action research project that was focussed on developing classroom based activities which, it was hoped, would improve motivation through encouraging pupils to become more personally involved with the learning process. I was teaching science in a secondary school which operated a particularly rigid form of banding by ability so I set out with the aim of piloting such activities with both of the Year 8 classes that I taught: one of these was a top band, the other a middle band class. Towards the end of the year, I interviewed each group about their learning in science. First I interviewed a group from the top band class. This was a very gratifying experience as, without prompting, they talked enthusiastically about the extra activities I had introduced. However, as I listened to them I started to wonder what the middle band group would talk about because, despite my best intentions, for one reason or another they had not done these activities.

If, before I carried out these interviews, you had asked me whether I treated all pupils equally and fairly I would have said that I did. My perception of myself was strongly that of someone with a sense of social justice and a commitment to the ideals of comprehensive education. I had never been particularly comfortable with the banding system in the school and believed I was one of the 'good guys' who treated all pupils as worthy of respect regardless of their designation as top, middle or bottom banders. But here I

was faced with stark evidence that I was not one of the good guys. I was in fact someone who made the effort to engage the top band class with creative and imaginative activities while keeping the middle band on a stolid text book based diet. I was not treating them equally at all.

When I did interview the middle band group the results were much as I had feared. There seemed to be very little in the whole year's teaching that had stood out or captured their imagination in any way. On top of that there was a sense that these pupils lacked any kind of confidence about their work. In particular they were nervous, almost fearful, about practical work which seemed to present unspecific, exaggerated and ill-understood dangers.

Around the same time I had a student teacher with one of my classes. She was generally very competent. However, when I observed her with a class doing group work, I realised that she was interacting differently with boys and girls. Not only did the boys get more of her time but the quality of her interactions with the boys was different. She questioned the boys about their understanding of their work and discussed the theory behind what they were doing. The girls, on the other hand, got a more 'domestic' sort of help: the talk was of practical matters or presentation of results.

After the lesson we discussed these issues. She explained that more time had been given to the boys because there were more of them in that class. This was not in fact true: there were 15 boys and 15 girls in the class. She was quite unaware that she was treating pupils differently. Like me she seemed to be afflicted with the belief that she treated all pupils equally and fairly, and resented my suggestion that she might not.

These observations presented two examples of ways in which teachers could discriminate against lower ability pupils, firstly, through presenting limited opportunities for learning and secondly by restricting the quality of interaction between teacher and pupil. Although at this stage I had only observed differences in teacher-pupil interactions with respect to gender, it seemed possible that these differences might also be evident with top and middle band pupils. It was also apparent that not only might teachers be totally unaware of their discriminatory actions, but that they might also deny the very possibility of such actions because it conflicted with their self-image as fair-minded members of human society.

It was with these things in mind that I set about the action research project determined to ensure that I would carry out the same activities with both top and middle band classes and that I would try to ensure that I talked to all pupils about the nature of their work rather than merely addressing domestic issues.

I would like to be able to report resounding success due to treating pupils equally and fairly and giving them a high quality of learning experiences. Unfortunately that is not exactly what happened. In fact if I hadn't been committed to carrying out these activities for the sake of the project I would have abandoned some of the work.

In particular one Year 8 middle band class reacted to the novel activities by behaving unusually badly. It seemed that as these activities did not consist of formal written tasks they were not seen as real 'work' and therefore were an opportunity to mess about. These pupils seemed unable or unwilling to engage with anything that required any kind of personal input or initiative and did not seem able to cope with activities that required collaboration. They seemed to

be individually and collectively powerless and lacking in the necessary confidence to tackle any activity that was not highly structured and limited in its level of challenge.

To evaluate the project I gave my Year 8 classes a simple questionnaire which asked them to describe activities in their science lessons that they had enjoyed, why they had enjoyed them and to say what they had learned from these activities. Many pupils in both top and middle band classes described an experiment where different metals were burned in air to compare their reactivity. However, the descriptions that pupils gave of what they had learned differed markedly. The top band pupils described the expected learning outcome, i.e. that different metals had different reactivities and that these could be judged by observations of their reactions with air. The middle band pupils described superficial characteristics such as metals burning with different colours.

It may sound like an over-generalisation to say that top band pupils described the expected learning outcomes and middle band pupils did not. However, the difference was that clear cut. All of the top band class had learnt what was expected while none of the middle band class had. This was not really what I would have predicted. I would have predicted a continuum with some kind of gradual change from more to less able. This was one of the first clues that I might be looking at a group response rather than an aggregation of individual responses.

Another thing which emerged was the importance of the personal dimension of pupils' relationship with the learning process. One of the middle band pupils explained that he had chosen the metal burning experiment because it meant

the class was trusted to use Bunsen burners. It became clear when I interviewed pupils from this class that this was an important issue. At the time the class were, because of their behaviour, copying out in every lesson including P.E. and art. I was, it seemed, the only one of their teachers allowing them to do any kind of practical activities although I was not doing it because I trusted them any more than any one else but rather because I was determined, as far as possible, to maintain comparability between the groups of pupils I was studying.

It also became apparent in these interviews how unhappy some pupils were with their situation. One girl was almost in tears as she told me how she wanted to be a nurse but she didn't think she'd ever pass enough exams unless she moved up to top band. She had a friend in top band and knew exactly how many lessons her class was behind them. She knew she would never catch up and would only get further and further behind and that her chances of moving up would diminish and with it her dream of becoming a nurse.

Nobody had set out deliberately to disadvantage the middle band pupils but somehow both teachers and pupils had become trapped in a vicious circle which resulted in children of twelve and thirteen years old receiving a dumbed-down version of the curriculum and feeling that they were not trusted by their teachers and that their futures were blighted. At the end of this project I had become convinced that somewhere in the process of dividing up and labelling pupils as top or middle or bottom the school had created some groups of pupils who were receptive to learning and other groups who were not. The problem of motivation and engaging pupils in the learning process went beyond the individual classroom and it seemed unlikely that any individual teacher could

ever completely counteract such a powerful institutional effect. I, like many other teachers, had been treating this as an issue which related to my subject, my classes and my teaching and so had been attempting to enhance motivation through providing more engaging learning activities. However, for my middle band class it seemed that, rather than improving learning in any way, I had merely presented a more amusing set of play opportunities. I was nowhere near tackling the root cause of their disaffection.

1.2 Background

There has been a very long-running debate about the relative effectiveness of different systems of grouping by ability. A number of authors (e.g. Hallam, 2002; Slavin, 1990) cite the work of Turney who wrote about ability grouping as early as 1931 and described issues which are strikingly similar to those still discussed today. This shows how little the debate has moved forward despite the substantial body of evidence produced in the intervening years by studies detailing the characteristics of ability grouping and exploring its effects. In the past 40 years there have been many studies in the USA and the UK (Rosenbaum, 1976; Schwartz, 1981; Oakes, 1985; Ireson and Hallam, 2001; Boaler, 1997). These studies have described the behaviour, classroom experiences and attitudes in high and low ability groups and would seem to confirm that my experiences are commonplace in those education systems, such as the UK and USA, which employ grouping by ability.

Explanations of the underlying mechanisms that produce these characteristics are harder to come by. There are widely held, if largely unstated, assumptions that it is the experience of differential treatment by the system that produces

these responses in students of high or low ability. In other words, students react to being treated differently in terms of curriculum, quality of instruction, or teacher expectations and that this results in differences in behaviour, attitudes and educational outcome. In the USA in particular social inequality and ethnicity were seen as significant factors. However, even when social, ethnic, curriculum and other differences are accounted for the characteristics persist. The widespread nature of the phenomena seems to lend weight to the idea that the characteristics of banding or tracking systems are a consequence of the process of categorising and grouping pupils. Oakes, commenting on the differences that emerge between ability groups, notes that

> *...the interaction that occurs between student characteristics and school characteristics produces classroom environments that result in unintended behaviours on the part of both students and teachers leading to the differences observed. (2005, p212)*

She identifies these 'unintended behaviours' as a subject for further inquiry.

The focus of my research is to describe these unintended behaviours and their social and academic consequences for pupils in the case study school and to explore the process which gives rise to these behaviours.

1.3 The aim of this research

The overall aim of this research is to explore **why and how pupils are affected by being placed in groups according to ability.** The first part of this is seeking an understanding of the processes which operate in ability grouped systems while the second part aims to address the question of how allocation to a particular group affects the educational outcomes for that individual by looking

at the impact of banding on pupils' attainment. The ability grouped system under consideration is a three tier system with pupils being categorised as top, middle or bottom bands; this enables particular consideration to be given to the experiences of middle band pupils.

The research strategy employed in this study is set out in Chapter 2 which describes the relationship between the real world context of the study, the position of the researcher as an insider and how the process of data collection and analysis interact with existing knowledge described in the literature and contribute to the theory forming process.

The theoretical background of this study draws on two areas which are set out in Chapters 3 and 4. Chapter 3 reviews the literature that relates to ability grouping. Chapter 4 reviews the literature relating to social identity theory and looks at how the process of transfer to secondary school, self-stereotyping and the adoption of stigmatised group identities might influence motivation and learning. This exploration of the literature leads to the identification of specific research questions. These questions are:

1. How did the ability grouping procedures operate and were the cohorts of pupils comparable before grouping took place?

2. What evidence is there that pupils develop group identities and stereotypical views of in- and out-groups and how quickly do they arise?

3. What non-academic differences emerge between pupils after being placed in ability groups?

4. What differences emerge in pupils' beliefs about intelligence and their learning behaviours?

5. In what ways are teachers' responses different towards groups of lower or higher abilities?

6. Does ability grouping affect pupils' attainment?

In order to explore the processes underlying the effects of ability grouping this study used a wide range of data including some drawn directly from school-based sources. Details of the methods used are described in Chapter 5 which also considers issues relating to the validity and reliability of data from the various sources.

Chapters 6 describes the context of the study and Chapters 7 to 11 set out the research findings as they relate to each of the research questions. The final chapters summarise the proposed theory and look at the limitations and implications of this study.

Chapter 2   Research strategy

2.1 Introduction

The research reported here is a theory-seeking, longitudinal case study of the effects of ability grouping systems within the school in which I was working.

This school had a long established system of banding pupils by ability and the initial aim was to consider the effects of this system. However, preliminary findings of this study highlighted some of the problems for pupils, both social and academic, associated with banding. This focused school policy discussions on the need to consider alternatives to the existing grouping system and the outcome of these discussions was a decision by the school management to opt for a mixed ability grouping system. This provided an unforeseen opportunity to broaden the scope of the study and to include comparisons between a banded and mixed-ability system within the same institution.

This chapter is deliberately entitled research strategy rather than research design. I have chosen to use the term research strategy as this seemed to allow that there could be method and a clear direction to a project without the constraints of a pre-determined plan. An open and flexible approach seemed to be more appropriate to research whose principal aim was to develop theory that would help to understand why pupils were affected by different ability grouping systems. Throughout the research process there was an on-going interaction between the collection and analysis of data, reading of the literature and my day-to-day experiences as a researcher based in the researched environment. As ideas and theories developed, original data was

revisited and purposive sampling was used in the collection of further data. The process then continued with the re-examining of ideas and theories and the refining of research questions. There are similarities between this strategy and the grounded theory approach advocated by Glaser and Strauss (1967) although this was not an attempt to adhere strictly to their principles. Issues relating to fixed and flexible designs are discussed by Robson (2002, p5) who uses the term *"flexible"* to describe research designs which have less pre-specification and that allow the design to evolve and *"unfold"*.

2.2 The context of study

As 'real world' research this study was highly dependent on its context and so I shall begin by outlining the situation.

The school was a mixed 11 to 18 comprehensive in the North of England. It was formed in 1974 from the amalgamation of a grammar school with an adjoining secondary modern school. When the schools were amalgamated there was some debate about the structure and organisation of the new school, in particular whether pupils should be grouped by ability or not. The outcome of this debate was the establishment of a banding system which persisted with only minor changes until 2003. Pupils were placed in bands based on overall ability and taught in these bands for all subjects. In effect this perpetuated the old selective system and pupils in different bands behaved as separate populations within the same institution.

Band placement was originally based on the assessments and opinions of primary teachers. Key Stage 2 SATs data, once they became available, provided a more objective basis for allocating pupils to bands and also reduced

variability between the different feeder primary schools. Originally pupils were not only taught for all of their lessons but also registered in their banded classes so there was very little interaction between pupils in different bands. This changed around 1990 when mixed ability tutor groups were introduced for registration and pastoral work. Another thing that changed gradually over the years was the number of classes in each band. In 1974 there were 3 top, 3 middle and 3 bottom band classes but by the time the final year 7 cohort was placed in bands in 2002 there were 5 top, 3 middle and one bottom band class. The system was so long and firmly established that many pupils in the school shared their experiences of being part of the banded system with parents as well as siblings and as the fundamentals of the system remained so consistent the notions of 'middle band', 'top band' and 'bottom band' were well understood.

The school intake was homogeneous consisting of an overwhelmingly white, urban population. As an over-subscribed Catholic school the intake was drawn almost exclusively from feeder Catholic primaries and included a high proportion of practising Catholics. The majority of the intake therefore belonged to a specific subset of the white urban population which shared a common culture. The area had seen the decline of heavy industry, a shift to less-skilled, service-based jobs and considerable unemployment. As a result the population was in gradual decline as some people moved out of the area but very few moved in. This meant that there was a very low turnover of pupils and the vast majority of pupils remained in the school for the full five years. In terms of economic status, the only data held by the school related to free school meals and this showed an even distribution, with respect to ability,

across the school population. In other words, there seemed to be no social, ethnic or economic factors in the population which might account for, or contribute towards, differences in achievement between different groups of pupils (see Chapter 6).

On their first day at the school, the 2001 and 2002 cohorts of pupils were allocated to either top, middle or bottom band classes according to their average SATs fractional level. Once divided up, these classes were taught separately but in the same school, by the same teachers and with the same access to the facilities and opportunities that the school had to offer.

In September 2003 banding was dropped and mixed ability grouping was introduced for the new intake of Year 7 pupils who were taught in these groups for all their subjects. This change went ahead despite considerable resistance from some teachers who supported the status quo and concerns from others who had no experience of mixed ability teaching. For example, there were worries about teaching mixed ability groups effectively and that mixing pupils would mean that they all became 'middle band'.

In both systems pupils were placed in sets for core subjects from Year 9 onwards; for the banded cohorts setting took place within bands, while the mixed ability cohort was set across the whole year group.

2.2.1 Why study an obsolete system?

I have already described this research as a theory-seeking case study. There are always questions relating to the generalisability of findings from case studies. This is particularly true in the area of ability grouping where there is considerable variation in practice between schools. The most recent study of UK schools, in 1994, indicated only 17% of schools used setting, streaming or

banding for all subjects from the start of Year 7 (Benn and Chitty, 1996). So only a minority of schools has operated a banding system as rigid as the one applied to the 2001 and 2002 cohorts in this study and now this school had itself dropped this system in favour of mixed ability grouping for all subjects in Year 7 with the introduction of setting in a limited number of subjects in Years 8 and 9. It is reasonable therefore to question the value of a study of an obsolete system.

However, the purpose of the study was not to evaluate the effectiveness or otherwise of banded or mixed ability grouped systems and to arrive at any judgements as to which was the best approach. Rather the primary purpose of the study was to exploit the context with the aim of getting a better understanding of why ability grouping affects pupils.

2.2.2 Opportunities presented by this context

Studies of ability grouping are often complicated by social or ethnic factors, or by the intricacies of the grouping or setting procedures adopted by schools. Within a particular study, this can make it difficult, if not impossible, to establish any causal relationship between ability group placement and pupils' attainment or attitudes. It also poses considerable problems for those such as Kulik and Kulik (1982) and Slavin (1990) who have attempted to draw together the findings of a range of studies in a meta-analysis or best evidence synthesis. In the school in this study the simplicity of the ability grouping systems and the social homogeneity of the school's intake meant that the context and structure were very straightforward. So, when considering whether the school in this study was a suitable context for exploring the issues, we find a situation where variation in most educational, social and economic factors was effectively

controlled by local circumstances, leaving allocation to ability groups as the single externally imposed variable. Rosenbaum (1976) describes a study of tracking in the USA in which a school with a similarly straightforward situation was deliberately chosen as the context of his study. The absence of complicating factors allows for a more direct exploration of the consequences of placing pupils in groups by ability and provides the opportunity to develop theory to explain the responses of pupils in different groups.

This study used evidence from three separate, but consecutive, cohorts in the same school. These were the 2001 and 2002 banded cohorts and the 2003 mixed ability cohort which were followed from transition to secondary school up to their GCSE exams at the end of Year 11. I believe that these had sufficient common ground between them for it to be justifiable to draw together findings from the separate cohorts in the process of generating theories. The decision of the school to change from a rigidly banded system to a mixed ability system meant that comparisons were possible in two ways: between different ability groups within a single cohort and also between consecutive cohorts who have experienced the contrasting systems of ability grouping.

Particular consideration was given to 'borderline' pupils in order to explore the position of pupils between whom there should have been least difference. For example, for the pupil interviews at the start of Year 7, a sample of pupils clustered around the border between top and middle band was chosen who were as far as possible matched for academic attainment, self esteem and attitude to work. In follow up interviews at the end of Year 7 as well as repeating interviews with the original groups of pupils, new groups were

identified which consisted of the very small number of pupils who had moved between bands. It was considered that, as these pupils had experience of both bands that they might provide useful insights through being able to compare their experiences.

2.3 Real world research

This research was located in the real world and used mixed methods drawing on quantitative data held by the school and additional qualitative data, for example, from lesson observations. The range of data available meant that consideration could be given to both academic attainment and factors relating to social and personal development.

The advantage of real world research is that it seeks to observe, interpret and understand natural behaviours in natural situations. It has disadvantages in that natural systems are inevitably complex and are subject to unpredictability and the influence of confounding variables. However, as this research has sought to understand the interactions between individuals and the social systems of which they are part, there really was little option but to work in a real world setting and to give due and careful consideration to the implications of this. The alternative of experimental research, either laboratory-based or in controlled comparisons in classroom situations, has the advantage of reducing the complexity and unpredictability but it could at best only provide a simplified, if not simplistic, model of such a complex situation.

Robson (2002, p4) says that *"one of the challenges inherent in carrying out investigations in the 'real world' lies in seeking to say something sensible about a complex, relatively poorly controlled and generally messy situation".*

So here was my challenge: to try to make some sense of the real world experiences of pupils and teachers in my school.

2.3.1 The role of the researcher in real world research

There are issues that need to be considered regarding the position of the researcher in relation to the context and also in the disposition of the researcher both towards the substance of the research and towards the methodology.

As a teacher working in the school and as the researcher, I had a dual role in the school which was the research environment for this study. Robson (2002, p534) describes this dual role as being a practitioner-researcher who is *"someone who holds down a job in some particular area and is, at the same time, involved in carrying out systematic enquiry which is of relevance to the job"* and he goes on to categorise some of the advantages and disadvantages of this position.

2.3.2 Advantages of being a practitioner-researcher

Robson (2002, p535) considers that the position of a practitioner-researcher confers advantages in terms of *"insider opportunities"*, *"practitioner opportunities"* and *"practitioner-researcher synergy"*. These relate to this study in the following ways.

"Insider opportunities" relate to the pre-existing knowledge of the context. As a teacher of long-standing in the school I benefited from this advantage. I had considerable experience of working with the banded system and an intimate knowledge of the situation. In addition to my work as a science teacher I had responsibilities, including that of union representative, which meant that I worked with and, I believe, held relationships of trust with staff at all levels

within the school. It was probably also significant that I held no 'line management' responsibilities and therefore operated outside of performance management and other monitoring and evaluation procedures. I believe that my position and established relationships with staff were particularly important in gaining access to make lesson observations and follow-up interviews. I also believe that teachers were more likely to give me their honest opinions and even to admit to weaknesses because they trusted me to maintain confidentiality.

"Practitioner opportunities" relates to the reduction of implementation problems. As an insider I was able, for example, to identify the least disruptive time to administer a questionnaire. I was also aware of the range of performance and pastoral data held by the school and was able to negotiate access to these data. For these purposes it was essential that I had at least tacit support for the research from the school. My ongoing presence in the field meant that I was able to pursue new avenues of inquiry and to seek new data as ideas and theories developed.

"Practitioner-researcher synergy" refers to the way that the experience of a practitioner contributes not only to the implementation and analysis of studies but also to the identification and design of useful and appropriate studies. This was illustrated by the fact that early findings from this study found direct application in the decision making processes of the school and contributed to the evidence that supported the change to a mixed ability system. This indicates that the study had identified an issue that was appropriate and useful to the school.

2.3.3 Challenges of being a practitioner-researcher

Robson (2002, p535) also identifies disadvantages of being a practitioner-researcher. The two most relevant in this context were *"Time"* and *"Insider problems"*.

"Time" was a serious issue because the day job of teaching, and the educational needs of the pupils, must take priority over research activities. There were some strategies which helped alleviate the problems relating to data collection. For example, one of the advantages of using video recording for lesson observation was that I could be teaching my own class while the data were being collected. Similarly while time had to be found to carry out interviews there was rarely provision for immediate follow-up time for reflection and note-making so tape recording was essential to provide a permanent record that could be considered on a later occasion.

"Insider problems" include preconceptions or bias on the part of the practitioner-researcher, hierarchy difficulties and the 'prophet in own country' phenomenon.

It will be clear from my introduction that my motivation to engage in this study was concern with the misery caused to both pupils and teachers by what I considered to be an inequitable system of banding by ability. I was well aware that this could be seen as a biased view point and that criticism of one system (banding) could easily be misconstrued as support for the other (mixed ability). This was, therefore, an issue which needed to be addressed in order for the research to have any validity and to be seen as credible, particularly by supporters of the banding system. One strategy I employed to try to guard against bias was to present my work to a hostile audience consisting of the

staunchest supporters of the banding system and to engage them with reviewing findings and theories. Some individuals were willing to scrutinise the evidence in minute detail in the hope of identifying weaknesses and deflecting any threat to the status quo. Such criticism and questioning by individuals whose opinions were diametrically opposed to my own provided an alternative evaluation which could challenge my assumptions and provide an effective counterbalance to bias.

In terms of hierarchy, as I have outlined above, my relatively low position in the school's management structure conferred certain advantages in terms of obtaining data from staff. However, such a low position also has disadvantages particularly with a study of this nature which was essentially concerned with whole-school issues and focused on areas such as pupil attainment, teaching and learning, and behaviour. Responsibility for these areas lay with senior management and so my research was essentially questioning the effects of practices implemented by senior managers, or their predecessors.

My experience following the presentation of the early findings of this study could be seen as an illustration of *"hierarchy difficulties"*. On the one hand my report was held to be crucial to the school's decision to replace the banding system and my presentation to staff was effective in persuading them of the need for change. On the other hand, despite clearly having a high level of understanding, commitment and interest, I had no opportunity for involvement with the implementation of the change.

Status differences could well be at the root of Robson's *"prophet in own country"* phenomenon which suggests that outsider advice might be valued more highly than that of an insider practitioner-researcher. A researcher who

develops a high level of expertise but occupies a relatively low position in the management structure is bringing about an inversion of the establishment's hierarchy of knowledge. The researcher could be seen as 'getting above their station'.

My experiences have opened questions about the role of research in decision-making processes in education. The decision of the school to change from the banded system might not have been the enlightened engagement with empirical research that it appeared to be. While it might have been that the school took account of research findings before embarking on this major change, it might also have been that the senior management saw the research primarily as a means to overcome staff resistance to a change that they had already planned to implement.

2.4 Developing theory

2.4.1 The disposition of the researcher

Since the research was essentially about generating theory it is important to consider the disposition of the researcher towards the construction of knowledge. As a science teacher I am aware that science is sometimes characterised as being restricted in scope by the positivist paradigm. However, I believe that a thorough training in traditional scientific method has several advantages. Firstly, it has given me an appreciation of the existence of approaches to the construction of knowledge and so provides a conceptual framework for locating other paradigms both within science and in other areas such as the social sciences. This is analogous to people with religious beliefs being able to empathise with people of different religious beliefs to a greater

extent than people with no religious beliefs and hence no conceptual framework for understanding the nature of religious belief.

Secondly it has enabled me to develop a broader conception of how theory has developed in the sciences, and of the imagination and personal commitment that accompanied the gestation of ideas. When you consider the history of science it is clear that not all advancement of ideas has taken place through the strict adherence to positivist methods. In fact many major advances would not have occurred without deviation from accepted methods. Feyerabend (1975, p23) proposes the idea that science is essentially an anarchistic process and that some developments have *"occurred only because some thinkers either decided not to be bound by certain 'obvious' methodological rules, or because they unwittingly broke them."* He considers that *"This liberal practice is not just a fact of the history of science. It is both reasonable and absolutely necessary for the growth of knowledge"*.

The personal dimension of scientific endeavour is discussed by Polanyi who differentiates between two kinds of problem-solving; systematic and heuristic. He describes a systematic operation as being a wholly deliberate act, such as is practised in traditional scientific methodology. He describes the heuristic process as having a combination of active and passive stages.

> *A deliberate heuristic activity is performed during the stage of Preparation. If this is followed by a period of Incubation, nothing is done and nothing happens during this time. The advent of a happy thought is the fruit of the investigator's earlier efforts, but not in itself an action on his part; it just happens to him. The testing of the 'happy thought' by a process of verification is another deliberate act by the investigator. (1958, p126)*

Polanyi's heuristic approach is well adapted to situations where the problem to be solved relates to the development of theory as it is aimed at provoking those new ideas and moments of clarity in thinking, or *"happy thoughts"*, that are so essential in this process.

Both these writers acknowledge that while the traditional scientific method is a valid way of proceeding in certain circumstances it is by no means the only way forward and that humans are capable of processing information in sophisticated ways far beyond the constraints of such a formal method. They both seem to capture what is for me the appeal of science which is the art of exploring ideas and the excitement and passion that accompanies it.

A third advantage of a traditional scientific training is that a scientific approach is strongly inculcated. Robson (2002, p21) urges us to recognise that the scientific approach has positive attributes and that we should not *"throw out the scientific baby with the positivist bathwater..."*. He asserts the value of a scientific approach to ensure that research is carried out systematically, sceptically and ethically.

2.4.2 Building Theories

The aim of this study was ultimately to move from a collection of empirical data, through a process of analysis, to some kind of theory.

Since this was real world research I was exploiting the naturally available data relating to the pupils, which was almost exclusively quantitative data, and supplementing this with qualitative data collected through interviews, observations and questionnaires. While different methods must be applied to each type of data to begin the process of analysis and making meaning, the questions being asked of the data may be the same.

For example, the question 'how does banding affect pupil behaviour?' might be asked of quantitative data relating to behaviour scores on reports, or records of merit certificates and detentions. These quantitative data could be used to establish whether relationships existed between band placement and any of these behaviour indicators. The same question might also be asked of qualitative data such as classroom observations, interviews with teachers and pupils, and questionnaires; these may provide further evidence about a relationship between band placement and behaviour. In addition, qualitative data may provide insight into the underlying social processes that may have resulted in differences in behaviour and help to establish whether there was a causal relationship or whether there were confounding variables, for example, ability, which influenced both band placement and behaviour (Field & Hole, 2003). It is in this final stage that the process of developing theories comes into operation.

Glaser and Strauss (1967) advocated the Grounded Theory approach which in outline consists of an active data collecting stage, followed by a relatively passive stage of categorisation of data. This second stage employs various strategies for refining categories and has the effect of keeping ideas in mind while waiting for some of Polanyi's "happy thoughts" (1958, p126) to come along.

In their early work Glaser and Strauss (1967) recommended not looking at the literature until the analysis of data was complete and the grounded theory formed. Since then, modifications to this stricture have emerged as it is implausible that any researcher could ignore their existing knowledge of a subject. In addition, it can be beneficial to allow a reading of the literature to

interact with the process of data analysis and theory forming. So, for example, my reading the literature about how some people interacted with the process of video recording led me to revise my opinion that videoing was an unobtrusive method of observation and also made me realise that the way teachers interacted with the videoing process was itself a source of evidence about their relationship with their class.

Grounded Theory provides a strategy for considering ideas and evidence and generating theory which has much in common with the anarchistic approach discussed by Feyerabend (1975). The appeal of this strategy is that it encourages the researcher to remain open-minded and promotes the exploration of new ideas beyond the constraints of existing frameworks of knowledge. Charmaz discusses the practices and principles of grounded theory and comments that: *"When you theorize you reach down to fundamentals, up to abstractions, and probe into experience. The content of theorizing cuts to the core of studied life and poses new questions about it".* (2006, p135)

Out of the process of theorizing a theory may emerge. Robson (2002, p552) defines a theory as a *"proposed explanation for phenomena, or sets of occurrences, or of relationships. A statement describing how some part of the world works...".*

Charmaz provides a wider discussion about theory and compares positivist and interpretive definitions. She considers that positivist theories aim to explain causal relationships and to make universal statements that can be used as a basis for predictions which can be verified by further research. She also considers that a disadvantage of positivist theories is that they can result in *"narrow, reductionist explanations with simplistic models of action"* (2006,

p126). Hence, a positivist theory would not seem a very appropriate outcome for a study which is concerned with a complex real world situation such as a school.

Charmaz considers the alternative of interpretive theory and says that this aims to:

- *Conceptualize the studied phenomenon to understand it in abstract terms*
- *Articulate theoretical claims pertaining to scope, depth, power, and relevance*
- *Acknowledge subjectivity in theorizing and hence the role of negotiating, dialogue, understanding*
- *Offer an imaginative interpretation* (2006, p127)

A theory which provides an *"imaginative interpretation"* that will enhance the understanding of the social phenomena and processes in a school would seem a far more rational and realistic an aim than to seek for hard and fast rules to direct school improvement.

2.5 Exploiting the context

2.5.1 Data sources

The school held a considerable amount of quantitative data about all of its pupils relating to both academic attainment and pastoral issues and this was made available for research purposes. These data were analysed to look for correlations, for instance, between KS2 and KS3 performance, and for the relative strength of the effects of different factors, for example, on the progression of pupils in different bands.

It was important to analyse such quantitative data for several reasons. Firstly, in the current political climate in which academic results are paramount there would be little prospect of applying the findings of any research unless the effect on pupil attainment was well established. So, for example, if it was demonstrated that ability grouping systems had no effect on attainment then other advantages of one particular system might be considered. However, if one ability grouping system was demonstrated to produce higher academic attainment then that advantage would be likely to override all other considerations. Secondly analysis of performance data allowed exploration not only of the effect of ability grouping on attainment but also of the timescale of such effects. This could be important for the purposes of the research in identifying critical times in the process and for the purposes of applying the research in terms of identifying the most appropriate point in time to make an intervention. Analysis of pastoral data might also expose issues such as the relationship of behaviour or attendance to ability grouping.

While analysis of quantitative data can describe certain issues and provide information about the relative importance of certain factors, it cannot explain itself and it needs interpretation. In this study the approach taken has been to seek out qualitative data to give meaning to the quantitative data. These qualitative methods have included the use of questionnaires, with open-ended questions, semi-structured interviews with groups of pupils, direct observations of lessons and interviews with the teachers concerned.

2.5.2 Using mixed methods

The approach that has been described above is a research strategy that employs multiple methods to collect both quantitative and qualitative data.

Robson (2002, p372) notes that fixed designs have certain disadvantages, for example, although they are well adapted to establishing relationships between variables, they are typically weak in establishing the reasons for them. He discusses a range of advantages of using mixed methods including one which particularly applies to this study which is *"facilitating interpretation"*. In this study the quantitative data will be used to describe the effect that ability grouping has on pupils, while the qualitative data will be used to aid the interpretation of the quantitative data and will assist in the process of making meaning and explaining why ability grouping has the effect that it does.

Cohen, Manion and Morrison (2000, p112) also comment on the advantage of using mixed methods as *"methodological triangulation"* which contributes to the validity of a study. An example of methodological triangulation in this study would be the use of quantitative data from pastoral records and qualitative data from interviews, questionnaires and lesson observation to address the question: are there differences in behaviour between pupils of different abilities? Cohen et al (2000, p114) suggest that mixed methods used in this way as *"between methods triangulation"* confer validity by countering the bias that may result from the effect of any single method on the real world situation under consideration.

2.5.3 Accessing 'hidden' data

One issue that was apparent from my own experiences was that the actors whether they were teachers or pupils might be unaware either of the exact nature of their actions or of the reasons for those actions. In the case of teachers, it is common practice to carry out survey research using questionnaires to explore attitudes and behaviour towards different ability

groups. However, without any deliberate intention of misleading, it is possible that teachers, rather than describing what they actually are doing, will describe what they believe they are doing in terms of attitudes to different groups, and what they believe they should be doing in terms, for example, of differentiating. For this reason I decided first to record video observations of lessons so that an accurate record existed before interviewing teachers about their lessons. They were invited to discuss both the specific lessons that were observed and how these compared to typical lessons. I felt that this grounded their commentary while allowing them to place the lessons in context. Particularly in the case of lessons that had not gone too well this allowed teachers to discuss quite delicate issues without feeling too exposed.

In the case of pupils, particularly the younger age group, their social and psychological maturity is likely to influence the way they interpret their experiences. So, for example, they may interpret their assignation to a particular group in terms of internal, personal attributes such as ability, concentration or behaviour rather than reflecting on external influences such as their position in a large social system. In addition, direct questions about social identity may not be meaningful to pupils and an indirect approach was considered likely to be more effective. For example, pupils' relationships with their groups might be inferred from responses to questions about whether they like their class, or from their use of language, such as referring to other bands as 'them' and their own band as 'us'.

2.6 Other issues

2.6.1 Trustworthiness

A theory-seeking case study might seem to be a contradiction in terms as 'case study' implies a focus on a particular instance and 'theory' implies something generalisable. It is therefore important firstly to consider the trustworthiness of the research as a case study and then to explore the generalisability of any theory which might emerge from the study. Trustworthiness, according to Robson (2002, p93) involves three related concepts: validity, reliability and generalisability, which were originally developed in the context of traditional fixed designs using quantitative methods. However, these basic concepts have been adapted and interpreted in such a way that they can be applied effectively to qualitative research. This makes it possible to consider validity, reliability and generalisability with respect to both the qualitative and quantitative methods employed in this study.

Validity concerns the level at which the data that has been recorded from observation or measurements can be considered a true representation of reality. These concerns might include construct validity in quantitative work (Cohen et al, 2000, p110) which in this study might be a consideration of whether SATs tests scores are the valid measure of ability that they are assumed to be. In qualitative work they might include reactivity bias (Robson, 2002, p172) where the instrument, for example a video camera, might alter the behaviour of those being observed. Concerns with the validity of individual methods will be discussed in more detail in later chapters. However, it is inevitable that 100% validity will not be achieved.

Reliability concerns the extent to which the same results would be obtained if the investigation was repeated in similar circumstances. There are different ways of assessing the reliability of the data. In this study where similar quantitative and qualitative data are available for consecutive cohorts it is possible to repeat analyses of these data. It is also possible to compare the findings from this study with those reported in the literature that have used similar methods. In other words both internal and external comparisons can be made in order to support judgements about the reliability of the findings. Generalisability relates to reliability in the sense that if a study can be repeated and similar results obtained then it must be generalisable at some level. It is important to go back to consider the type of theory being sought by this study. I am not attempting to produce a positivist theory which might allow for statistical generalisation so it is not important that the research is generalisable at this level. So, for example, I am not going to propose that pupils in mixed ability groups achieve 24% better GCSE results than those in bands. I am aiming at an interpretive theory which enhances understanding of a situation and it is likely that there are sufficient similarities between the context of this study and other situations for the findings to be generalisable at this level. Robson (2002, p177) refers to this as analytical or theoretical generalisation.

2.6.2 Ethical issues

This research exploited a naturally occurring situation where the allocation of pupils to ability groups was determined by school policy. This essentially meant that, in the banded system, pupils who were close to the borderlines between bands and between whom there were no significant differences were

labelled as either 'top', 'middle' or 'bottom' band and led to believe that they had higher or lower ability. If this action had been instigated as part of a research project it would certainly have raised ethical issues. However, as the researcher had no influence over this practice there were no ethical issues in relation to this that were within the scope of the research.

Throughout the research steps were taken to ensure that all those taking part were aware of the purposes of the research, why they were being asked to participate and how their data would be stored, used and reported. However, while it was possible to communicate this information to the teachers involved with the research and to allow them to review and comment on the findings, the situation with pupils was not so straightforward and ethical issues did arise. Robson (2002, p69) identifies ten questionable practises in social science research some of which are particularly relevant to my work with pupils. These include *"coercing people to participate"*, *"withholding information about the true nature of the research"* and *"otherwise deceiving participants"*. Ethical guidelines (BPS 2005, BERA 2004) provide advice on appropriate responses to these challenges.

Pupils were invited to take part in interviews and all seemed happy to do so, perhaps because the interviews took place during lesson times and provided a break from the normal routine. However, the power imbalance in the teacher-pupil relationship is likely to make it difficult for pupils to feel that they could refuse and this could amount to coercion. Although the voluntary nature of the interviews was emphasised in the invitations and again at the start of the interview, there does not seem to be any way of guaranteeing that pupils did not feel coerced.

The first set of Year 7 interviews were presented as an investigation into how pupils had settled into secondary school and at the end of Year 7, about their experiences of their first year. The *"true nature"* of the research concerned group and individual identity and pupils' attitudes and experiences of the banding system. There were reasons for obscuring the true nature of the research which included assessing how important the issue of banding was for pupils. The BPS guidelines (2005) note that in some circumstances it is impossible to carry out research if respondents are aware of the research hypothesis. It was felt that indirect questioning would be more likely to draw out these issues without undue influence from the researcher and that the difference between the stated and true intentions of the interviews did not raise ethical issues.

The final issue is that of *"otherwise deceiving participants"*. I knew that my sample was drawn from the borderline group so I knew just how close these pupils were to being in a different band. For the middle band pupils it might have enhanced their self-esteem if they had known that this was the case and I had to make a decision whether to tell them or not. I decided not to because it would make no difference to their position or to the likelihood of their being moved up and it might actually lead to a greater level of personal dissatisfaction for them. I also had to consider whether informing the pupils might significantly alter their responses at that point or in the future and so influence the outcomes of the research. In effect I chose to allow pupils to remain in the same situation as their peers rather than exposing them to possible harm by alerting them to the inequity of their situation (BPS, 2005).

Cohen et al (2000, p62) discuss issues and strategies which can be used to ensure the maintenance of anonymity and confidentiality for all participants. For pupils who were taking part in interviews assurances of anonymity were communicated verbally in terms of not using their actual names in any reports and they were reassured about confidentiality in terms that I would not be telling other people including other teachers what any individual had said. Similar assurances were given regarding questionnaires for Year 7 pupils.

Teachers whose lessons were videoed were assured that confidentiality would be maintained as the tapes would not be watched other than by the researcher and her supervisor and that their permission would be sought if there was ever an occasion when clips from videos might be used, for example, in a presentation of research findings. They were also assured that anonymity would be maintained in reporting of findings. Teachers were asked to give similar assurances to classes who were being videoed.

The purpose of the research was presented to pupils in terms of the school wanting a better understanding of their point of view of school and learning. Teachers were given a full explanation of the purposes of the research.

A great deal of data is held or analysed by computer and this introduces issues relating to the Data Protection Act (1984). Cohen et al discuss how this establishes essential safeguards to protect data from abuse or misuse and note that *"Data held for 'historical and research' purposes are exempted from the principle which gives individuals the right of access to personal data about themselves, provided that the data are not made available in a form which identifies individuals"* (2000, p70). They also note that data held for research purposes can be held indefinitely. Another important principle of the Act is the

establishment of appropriate security measures to prevent unauthorised access or disclosure of personal data.

SPSS, Nvivo and fOCUS software were used in this study for the analysis of data. SPSS data bases were produced from an amalgamation of information from different sources: some data were provided by the school, while other data came directly from research activities. School data bases were provided on discs and, as some contained sensitive data, measures were put in place to ensure the security both of the discs and of the data once transferred to the research data base. In practical terms it was easier to combine the different sets of data while pupils' names were still in place, removing them once the data base was complete leaving a pupil number as the only link to personal identity. The computer used for the processing of data was not part of any network so that access was limited to the researcher.

2.6.3 Writing

An extended piece of writing such as a thesis must have some kind of narrative structure. With research that follows a fixed design, the narrative follows the chronological sequence of events. However, with a project that employs a strategy that entails an evolution of ideas and a revisiting of data an alternative structure must be found with the narrative following the development of the theory.

The sequence that seemed most appropriate uses a framework which was developed from consideration of the literature that relates to ability grouping and social identity theory. This gave rise to a sequence of questions which advance the overall theory. Hence, the findings from this study have been presented in a way that brings together evidence from different sources to

address each question. This approach to presenting findings is described by Robson (2002, p513) as *"theory-generating structure"* which is a format in which *"Each succeeding section establishes a further part of, or link in, the argument, so that the totality provides a convincing case for a particular theoretical formulation"*.

This format has the additional advantage of presenting evidence in a way that makes triangulation apparent since the data that relate to each question are presented together. These sections allow the validity of each stage of the theory developed in this study to be established and hence support the validity of the theory as a whole.

2.7 Summary

Chapter 2 has described how the overall research strategy of using a case study approach is suited to its purpose which is to generate theory to explain the effects of ability grouping systems. This study employs a flexible, mixed methods approach in order to allow theory to develop from an interaction between ideas which emerge from the research process and existing knowledge from the literature.

Hallam (2002, p13) noted that in ability grouping research most studies consider social and personal development or academic achievement but not both, and that there may be a "trade-off" between these.

One of the positive aspects of this case study is that it uses mixed methods and considers both social and personal outcomes and academic achievement. This should allow for the issue of *"trade-off"* to be considered. Another positive

aspect is that the real world nature of the research provides rich data which will allow a vicarious understanding of the context of the study.

With a case study, there are issues which relate to the generalisability of the findings beyond its own context. However, while the particulars of this study may not be generalisable, the main aim is to develop new approaches to interpreting the social phenomena and processes that relate to ability grouping and it is considered that these approaches to interpreting phenomena should not be limited by context.

Chapter 3   Ability grouping

3.1 Introduction

There is a substantial body of literature relating to ability grouping which has accumulated since research into this issue was first carried out almost a century ago. Rather than attempt to outline the whole field this chapter focuses on research which is particularly relevant to this study in terms of context and methodology. Hence, where possible, reference will be made to real world studies which examine the effects of ability grouping systems in their natural setting, and to studies relating to secondary schools, in the UK, and where a similar curriculum was in place for pupils across the ability range.

The key issue in this study is the effect of ability grouping on pupils in schools. During the last 100 years this issue has been debated and researched with arguments continuing over whether there are social, personal or academic benefits of ability grouping and whether it favours or disadvantages particular groups. However, wherever and whenever ability grouping has been implemented, the characteristics that emerge are strikingly similar which suggests that common processes are operating.

The perceived advantages and disadvantages of homogeneous groups, in which pupils of similar abilities are taught together, have changed little over time with those from the 1920s described by Turney (1931) being remarkably similar to those set out by Oakes (1985) and echoed in the comments of pupils and teachers interviewed by Ireson and Hallam (2001). These are that: pupils learn better when they are with others of similar ability, less able pupils get more help to improve and catch up and teaching will be easier and more effectively

targeted, whereas, in mixed groups bright pupils will be held back by slow pupils. There is an expectation that taken together these advantages will lead to higher attainment. A perceived social advantage is that less able pupils will have more opportunity to contribute and will have higher self-esteem because they will not have to compare themselves to the more able pupils.

Beliefs about the disadvantages of ability grouping have also remained consistent over the years and pertain to the disadvantage experienced by lower ability groups including: discouraging effects of stigma, teachers dislike of lower groups, and lack of stimulus from higher ability students.

Support for ability grouping is widespread and underpinned by the belief that it is the most effective way of educating pupils in schools. The reasons for these beliefs and the prevalence of support for ability grouping need to be explored alongside the meaning of the two constructs, 'ability' and 'school effectiveness', which are drawn together in this process.

3.1.1 Defining terms: attainment, progress, achievement and ability

The use of "attainment", "progress" and "achievement" in National Curriculum documents and by Ofsted have led to these terms having specific meanings within the English education system which are defined as follows:

> *Attainment: this is the standard of academic attainment, typically shown by test and examination results*
>
> *Progress: this is the extent to which pupils have progressed in their learning given their starting points and capabilities*
>
> *Achievement: this takes into account the standards of attainment reached by pupils and the progress they have made to reach those standards*
>
> *(Ofsted, 2009a)*

In this study, *"attainment"* is being defined in terms of the outcomes of assessments, for example, test scores from KS2 or KS3 SATS, CATS, or GCSEs. The level of attainment in an assessment is a description of a fact and a specific instance; it makes no judgement on the characteristics of the individual who undertook the assessment, nor any generalisations. Similarly *"progress"* and *"achievement"* can be considered as specific, measurable outcomes.

By contrast the term 'ability' is used as a description of internal qualities or innate characteristics; it has a personal dimension that is absent from 'attainment'. In practice the distinction between academic 'ability' and 'attainment' can become obscured as schools use attainment in tests as direct measures of ability. For example, the school in this study used attainment in KS2 SATS to define pupils' ability; pupils who had high scores were deemed high ability, those with low scores had low ability. These test scores were used to allocate pupils to groups and to make predictions about future academic performance. Implicit in these actions were the beliefs that ability was fixed and that it could be accurately and precisely measured.

3.1.2 What do we mean by 'ability'?

The idea that 'ability' is a fixed characteristic of an individual underpins the use of standardised tests to categorise pupils and predict educational outcomes. However, there is considerable evidence that intelligence is not absolutely predestined and genetically-determined; it can be influenced by environmental factors and developed through experience of educational processes. Evidence of this is seen in the possibility of IQ scores being

improved through practice and influenced by the length of time spent in school (Feuerstein et al, 1980; Sternberg & Weil, 1980; Ceci, 1990).

In addition, recent advances in the understanding of human intelligence suggest that it is complex and includes aspects that are not described by the kinds of tests currently being used by schools. A number of authors have proposed broader conceptions of intelligence. Gardner (1993; 1999) has developed a theory of multiple intelligences including linguistic, logico-mathematical, spatial, musical, bodily-kinaesthetic, interpersonal, intrapersonal, natural and spiritual/existential. Sternberg (1984) describes a triarchic theory which considers intelligence in relation to the individual's internal world and external world along with the moderating influence of experience. Ceci (1990) has proposed a bio-ecological theory which emphasises the importance of learning, motivation and the social and physical context in the development of intelligence.

There is also evidence that simple measures of ability, for example, in terms of IQ, do not correlate strongly with school grades or work performance and so are limited in their usefulness as predictors of learning outcomes. Hallam (2002) comments that ability is only one factor that could affect learning outcomes; other factors might include motivation, effort, belief in the possibility of success, opportunity, knowledge of learning strategies, and prior knowledge.

In addition there is evidence that emotional intelligence (Goleman, 1996) may be a better predictor of success in life and that the dimensions of 'ability' measured through school tests and exams do not identify the aptitudes required by employers (Walford, 2002).

The tests currently being applied to our children are based on a very narrow conception of intelligence but their outcomes are considered as global descriptions of 'ability'. These tests are at best blunt instruments and are likely to overlook the potential of children whose intelligences and abilities are not measurable in such limited terms and risk limiting our expectations of pupils labelled 'low ability' (Hart, 1998).

3.1.3 What do we mean by 'school effectiveness'?

School effectiveness is a measure of how well a school achieves its purpose. Hence, before a judgement can be made about whether a school is effective, consideration must be given to what schools are aiming to achieve. This is an issue that is a matter for public debate and is subject to social and political influences at school, local or national level.

The aims of schooling can be defined in a wide range of ways relating to academic, personal, social and moral outcomes for individuals and in terms of benefits for the wider community. So, for example, they might include easily measurable outcomes such as academic attainment in exams or less tangible outcomes such as good citizenship or fitness for future employment.

When the National Curriculum was first introduced in 1988 it did not include a statement of aims. This meant that the criteria for judging school effectiveness had to be inferred from inspection procedures and the publication of league tables. However, the Revised National Curriculum (1999) described two aims which were

- *To provide opportunities for all pupils to learn and achieve*
- *To promote pupils' spiritual, moral, social and cultural development and prepare pupils for the opportunities, responsibilities and experiences of life.*

These are aims against which school effectiveness could be judged. However, while Ofsted inspections may make reports on a school's effectiveness with respect to these aims, it is achievement, so easily measurable in terms of exam results and reputedly so powerful in influencing parental choice, that has remained the predominant indicator of school effectiveness through the continued use in published league tables of individual school results.

Walford (2002) discusses how the political context in England has contributed to this narrowing of focus on exam success as the sole indicator of school effectiveness. He argues that current practice emerged from opposition to the introduction of comprehensive schooling and the use in this debate of examination results as a key indicator of school effectiveness. He highlights the role of the neo-conservative New Right in influencing the government to introduce independent management of schools and promote free-market competition and to publish school results in order to provide information for parents as they exercised their right to choose.

When league tables were first published they presented raw exam data and were considered to be misleading as they took no account of the intake of individual schools. These shortcomings were addressed through the introduction of measures of 'value-added'. However, Walford (2002, p51) comments that value-added measures have in effect further entrenched the notion that exam results are the paramount measure of school effectiveness:

> *By focusing so greatly on how value-added measures might make comparisons fairer, school effectiveness research has given greater credence to the view that achieving high examination results is the central purpose of schooling. In order to try to counter the New Right's simplistic publication of raw examination results, school effectiveness*

research has, almost unwittingly, fallen into step with the New Right in its definition of the purpose of schooling.

The latest Ofsted framework (2009b) reinforces the idea that exam and test results are paramount as it states that standards of attainment, rather than progress or achievement, are a limiting factor on the overall grading of a school. Within this framework, although a school may be "good" or "outstanding" with respect to other measures, including learning and progress, if the school has low attainment the best overall grade it is likely to attain is "satisfactory". This serves to further emphasise the perception that the priority for schools is to produce high attaining pupils and that a school can only be considered effective if it has good exam results.

3.1.4 School level decisions

The choice of grouping method will depend on the beliefs of decision-makers about the most effective way of educating pupils in their particular school. Given the current supremacy of exam results in defining school effectiveness it is the expectation that ability groups will lead to higher attainment that provides the strongest argument for implementing this practice. This may override other concerns, for example, the discouraging effects of stigma on low ability pupils, particularly if these pupils' performance is likely to fall well below the critical C/D borderline at GCSE and hence make no contribution to exam statistics (Hart, 1998). However, despite the predominance of the achievement definition of effectiveness, there are still differences at the level of individual schools. Here the ethos of a school may be a factor because it influences the institution's own definition of effectiveness. So, for example, one school might focus more strongly on academic attainment and define

effectiveness in terms of exam results, while another might place greater value on social equality and give higher priority to concerns about social and cultural development. Tibbenham et al (1978) found that schools were less likely to adopt streaming if they had a higher proportion of pupils from manual employment backgrounds; this could be interpreted either as these schools being less academically ambitious for their pupils or more mindful of social issues.

Ireson and Hallam (2001, p156) quote comments from heads which illustrate how different interpretations of effectiveness can lead to contrasting approaches:

> *Head of ability grouped school*
> *... We're trying to get the maximum out of each child ... I do not believe you can do that with mixed ability*
> *Head of mixed ability school*
> *... We can't demonstrate that people are of equal value if we start to separate them out and say you are better than somebody else or you are worse...*

However, the choice of ability grouping system may also be subject to influences from outside the school. In the UK the favoured system has varied over the years from an emphasis on setting and streaming in the mid 20th century when separate grammar and secondary modern schools were the norm, to a broad embracing of mixed ability accompanying the spread of comprehensives in the 70s and 80s, with the pendulum swinging back towards setting and streaming from the 90s onwards as pressure increased to achieve improved exam results. These changes were driven more by social and political attitudes than by educational research, so, for example, setting and streaming

are associated with traditional values and considered tried and tested methods, whereas mixed ability is associated with social experimentation and a reliance on ideology. In a paper entitled "Traditionalists and trendies" Kelly et al (1985) found that mixed ability teaching was controversial at this time and Hacker et al (1992, p122) comment that:

> *[The rationale for mixed ability] has been mainly sociological rather than academic with egalitarian arguments to the forefront. Social values seen as being promoted by mixed ability groupings include the sense of belonging to an un-segregated community, and the development of a non-competitive, non-elitist and undivided society.*

The 1988 Education Reform Act (ERA) introduced a national curriculum for England and Wales; the testing, league tables, target-setting and rigorous inspection procedures which followed made the drive for school improvement highly competitive. This created a climate that was not conducive to experimentation or allowing of the luxury of commitment to social principles. Hence, the return to setting and streaming can be seen as a pragmatic response to these challenges and a return to the security of what were believed to be established methods for getting results.

Government policy and inspection reports can also have a more direct influence on practice as this example from the white paper "Excellence in Schools" (DfEE 1997, p38) indicates.

> *Unless a school can demonstrate that it is getting better than expected results through a different approach we make the presumption that setting is the norm in secondary schools.*

This, as Ireson and Hallam (2001) note, meant that schools that chose mixed ability grouping would have to demonstrate not only that their results were good but that they were better than they would have been if setting had been used; this is an almost impossible task.

The views of parents are also among the influences on the decision to adopt one system or the other. Ireson and Hallam (2001, p160) comment that:

> It is clear that for many schools the demand from parents for setting has played an important part in the decision to increase the amount of ability grouping. Schools can ill-afford to become unpopular with parents as this has an immediate impact on the school budget. A school that loses popularity with parents of more able children can also face difficulties as the intake becomes skewed to the lower range. In some cases senior staff felt that they were faced with a moral dilemma experiencing a conflict between the values of the market and their educational values.

Wiliam and Bartholomew (2004, p291) conclude that despite the current Labour government's declared support for evidence-based education they continue to support setting. They comment that:

> [The government] continues to advocate the adoption of setting in all secondary schools despite the accumulating evidence that setting does not improve overall standards of achievement (and in fact probably lowers them), while also contributing to social exclusion by polarizing achievement, and in particular by disadvantaging students from working-class backgrounds. One is led, inescapably, to the conclusion that the Government's support for ability grouping is not based on evidence at all, but on political grounds. Setting is presumably believed to be popular with (some) voters.

3.2 The mechanics of ability grouping

3.2.1 Dividing pupils

Grouping in some way is an organisational necessity (Gamoran et al, 1995) and grouping by ability is one option. However, issues arise with homogeneous systems as soon as a fair way of allocating places is needed. In the England when grammar and secondary modern schools were widespread the 11-plus provided the means to progress to a grammar school. However, once comprehensive schools became widely established the 11-plus was abolished in most areas. Comprehensive schools were free to determine their own method of grouping and to use their own means of determining ability group placement. Ireson and Hallam (2001) comment on the range of methods used including standardised tests, internal assessments, primary or secondary teacher judgments, and pupil behaviour. Some of these are clearly subjective judgements and open to influence by conscious or unconscious prejudices, for example, polite girls with neat writing are likely to win out over loud, disorganised boys. Similarly, Oakes (1985) notes the range of ways that students can be allocated to different tracks in the USA which include standardised tests, teacher recommendation and parent/student preference. She identifies a number of issues with these methods including the influence on test scores of cultural background and prior educational experience, and the influence of factors such as race and class on teacher decisions.

The use of the 11-plus, KS2 SATs and other standardised external tests, for example, Cognitive Ability Tests (CATs), legitimises the process of labelling pupils by providing superficially precise measures of ability or attainment and giving schools apparently objective means of categorising pupils in these terms.

However, the dividing line between those who passed the 11-plus and those who didn't was not educationally meaningful; it was simply an organisational convenience providing the correct number of pupils to fill the grammar schools. Similarly the dividing lines used to create ability groups in comprehensive schools on the basis of differences in KS2 SATs or CATs scores are not educationally meaningful.

Oakes (1985, p11) discusses the way tests are designed to amplify differences between individuals rather than to identify what they have in common in order that the tests can fulfil a sorting function. She comments that:

> *We continue to interpret large test-score differences to mean large absolute differences which demand large educational differences.... We need to question seriously whether these relative differences are appropriate criteria for separating students for instruction.*

Hallam (2002, p69) comments that

> *Apportioning educational opportunity through performance on standardised tests can mean allocating very different educational opportunities on the basis of a one-mark difference.*

The apparently objective nature of external assessment data legitimises decisions about ability group placement but it overlooks the possible influence of factors such as social background, educational disadvantage (e.g. attending an under-performing school), educational advantage (e.g. aspirational parents employing tutors), variable rates of development of individuals, persistent effects of 'summer birthdays', family and health issues. Pupils who experience early disadvantage may underachieve at the end of KS2 and, hence, may be placed in lower sets; this has the potential to perpetuate early disadvantage.

There is considerable evidence that lower streams and sets do contain disproportionate numbers of pupils from low socio-economic backgrounds, ethnic minorities, boys and summer birthdays (Hallam, 2002).

3.2.2 Methods of ability grouping

There are various methods of ability grouping which represent different ways of organising pupils between classes or within classes. Homogeneous grouping systems include setting, streaming and banding: these take account of some measure of pupil ability to decide on teaching classes. Streaming and banding are similar in that both use a global assessment of ability to determine group placement, whereas setting bases decisions on performance in individual subjects. Heterogeneous grouping (mixed ability) either takes no account of measures of pupil ability or uses measures of pupil ability to ensure a balance in each teaching group. Within class grouping and cross-age grouping are more common in primary schools than in secondaries and their effects are outside the scope of this study. Descriptions of the types of ability grouping most relevant to this study are set out below.

Figure 3.1 Types of ability grouping (from Ireson & Hallam 2001, p10)

Banding	Pupils are placed in two, three or four bands on the basis of a test of their general ability. Each band contains a number of classes and pupils may be regrouped within the band for some subjects.
Streaming *(tracking)*	Pupils are placed in classes on the basis of a test of their general ability. They remain in their streamed class for most subjects.
Setting *(regrouping)*	Pupils are grouped according to their attainment in a particular subject. Setting may be imposed across a whole year group, across timetable halves, within a band or across mixed age classes. Sets may be serially ordered or there may be parallel sets.
Mixed ability *(heterogeneous)*	There is no attempt to group together pupils of similar ability. Pupils may be grouped in such a way as to achieve a range of abilities within the class. Other factors such as social relationships, gender or ethnic composition may for the basis for grouping.

Setting is often considered to be a system that has the educational advantages of streaming or banding through creating homogeneous teaching groups, without the social disadvantages. However, Boaler et al (2000) found that setting was linked to underachievement in both high and low sets, while Ireson and Hallam (2001) consider that setting has many of the same characteristics as banding or streaming including stigmatisation of low ability pupils and name-calling.

3.2.3 Is group placement permanent?

On the face of it ability groups within a comprehensive school should provide a more permeable system than grammars and secondary moderns where pupils are in separate educational institutions following different curricula. Indeed the importance of being able to transfer between sets was identified by Ofsted (1998) as being a characteristic of an effective system. However, even in a comprehensive school where all pupils are in the same school, in practice there is little movement between groups and for the majority of pupils, initial judgements of ability decide their educational futures.

There are a number of factors that limit the movement of pupils between ability groups and in secondary schools most movements happen early on in Years 7 or 8 (Hallam, 2002). One factor relates to the capacity of classes because if a higher class is 'full' one pupil must be moved down to make way for another to move up (Ireson & Hallam, 2001). The unwillingness of teachers to identify pupils to move down implicitly acknowledges the disadvantaged position of those in lower groups and the demoralising effect of being demoted. Barker Lunn (1970) working in primary schools observed the effect that pupils moving up showed improvement while those who moved down did worse. This

finding challenges the belief that being moved down provides motivation for pupils to work harder. Another factor is that differences between the work done in higher and lower ability groups means that pupils cannot easily move up and the operation of carousel systems in some subjects limits the number of occasions when transfer is possible. This is illustrated by the findings of Boaler et al (2000, p639) who write that:

> *All four schools [in their study] that use ability-grouping have told us that the system is flexible and that students will change groups if they are inappropriately placed, but the students in low groups believed there to be little hope of moving to higher groups. They believed that they were trapped within a vicious circle-to move up they needed good end of year test results, comparable with students in higher groups, but they could not attain good results because they were not taught the work that was assessed in the tests.*

Decisions about movement between groups are based on a range of factors, including internal assessments, behaviour and attitude. This can give rise to a situation where pupils, frequently boys, find themselves in lower sets because of poor behaviour rather than ability. This is discussed by Ireson et al (2005, p455) who note that students *"may be separated for social reasons to prevent the formation of unmanageable sets"* or *"moved into lower sets for behavioural reasons"*.

3.3 The effects of ability grouping on pupils

3.3.1 Impact on attainment: the divergence hypothesis

A number of studies have been made of the effect of ability grouping on attainment and many of these support the divergence hypothesis which

suggests that homogeneous ability grouped systems bring about a divergence of outcomes and produce greater difference between lower and higher ability pupils while heterogeneous systems reduce differences. Kerckhoff (1986) compared reading and mathematical performance both between schools of different types (grammar, secondary modern, comprehensive and private) and within schools, comparing those that grouped by ability and those that did not. His findings supported the divergence hypothesis and showed that in ability grouped systems the majority of divergence was due to negative impact on the attainment of lower ability pupils with a smaller contribution from the positive effect on high ability pupils. Lacey (1970; 1974) conducted a two part study in a school; first, while it operated a streaming system and then a follow up study after it had adopted a mixed ability system. He found that the mixed ability system led to improvements in the lower groups without affecting the attainment of the most able. Similar results were found by Newbold (1977) and Postlethwaite and Denton (1978).

In a recent study Linchevski and Kutscher (1998) compared the academic gains, or progress, of grade 9 pupils in mixed ability and ability-grouped, maths classes. They particularly focused on the question of whether the divergence between high and low ability pupils in ability groups was a result of gains made by high ability pupils or losses made by low ability pupils. They concluded that losses by lower ability pupils made the greatest contribution. Other recent studies looking at progression from KS2 to KS3 (Ireson et al, 2005) and KS3 to GCSE (Wiliam & Bartholomew, 2005; Venkatakrishnan & Wiliam, 2003) provide further support for the divergence hypothesis with pupils in lower sets making less progress.

These findings are important because they suggest that the divergence identified in ability grouped systems is mainly due to suppressing the achievement in lower ability pupils rather than enhancing the achievement of higher ability pupils. Hence, it might also be inferred that the reduced divergence in mixed ability systems is caused more by improved performance of lower ability pupils than by limiting the progression of high ability pupils.

3.3.2 Impact on pupils: the polarisation hypothesis

The polarisation hypothesis suggests that ability grouped systems result in a polarisation of attitudes in high or low ability groups, both within and between groups and towards school. This could result in social disadvantage for pupils in lower ability groups and could have an impact in terms of stigmatisation and name-calling, lowering of self esteem and expectations, and the development of anti-school behaviours and subcultures.

Polarisation is apparent from the common finding that all forms of ability groups (sets, streams, bands or tracks) can lead to name-calling and teasing by other pupils and to the use of stereotyped descriptions by teachers (Hargreaves, 1967; Lacey, 1970; Schwartz, 1981; Burgess, 1983). For example, the language used to describe high ability pupils includes bright, brainy, swot and teacher's pet, while low ability pupils are called thick, slow, difficult, dumb and stupid.

Further evidence of polarisation can be seen in peer relationships in the classroom. There is considerable evidence, from direct observations (Gamoran et al, 1995; Schwartz, 1981; Oakes, 1985) and pupil and teacher reports that behaviour is worse in lower groups and that, while high ability groups tend to develop supportive peer relationships, pupils in lower groups tend to be more

hostile towards each other. This hostility is explained by Schwartz (1981, p117) who comments that low ability pupils "*turn their negativity about their status onto each other*" and says that:

> *[For low ability students] caught in a dilemma by their academic label, it becomes more important to compete with and differentiate oneself from like-ranked peers than to complete the task at hand. By downgrading others' efforts and intelligence, one can set oneself apart from classmates and ensure that they do not succeed where one might fail.*

However, when placed in mixed ability groups low ability pupils tend to have better behaviour (Slavin & Karweit, 1985). This challenges the belief that low ability pupils necessarily have poor behaviour and suggests that the poor behaviour found in lower ability groups is likely to be, at least in part, a consequence of the grouping system itself. Poor behaviour may constrain academic progression in two ways: it may restrict the teacher's choice of activity and it may also reduce the time spent on learning tasks in lower ability groups.

Ability grouping may also affect pupils' self-esteem or self-concept. Some researchers have found that pupils in higher ability groups tend to have higher educational aspirations and academic self-concept (Oakes, 1985; Hallam & Deathe, 2002). However, Kulik and Kulik (1982) in a meta-analysis found no overall effect on self esteem due to ability grouping systems but did find that ability grouping tended to raise the self-esteem scores of lower ability pupils while reducing those of high ability pupils. Measures of self esteem or self concept can be assessed in general or academic terms and some researchers (Byrne, 1988; Chapman, 1988) have found that ability grouping has a negative

impact on academic self concept for lower ability pupils but little or no impact on general self concept.

Self-esteem and self-concept may be influenced by a number of factors including academic ability, social comparison, the quality of educational experience and the need to maintain global self-esteem. Some factors, such as low academic ability and the stigmatisation of low ability groups may result in low academic self-concept and global self-esteem. However, low ability pupils may maintain their global self esteem either by reducing the value they place on academic aspects of schooling and focussing more on social or physical aspects. They may also maintain their academic self-esteem through the *"Big-fish-little-pond Effect"* (Marsh, 1987) which suggests that low ability pupils will make more favourable comparisons of themselves without the presence of high ability pupils. These factors are not congruent and as a result may give rise to the conflicting findings in this area.

Since pupils are more likely to form friendships with the people they spend most time with, in homogeneous systems they tend to form friendships within ability groups. This can lead to the development of anti-school subcultures as low ability groups bring together alienated pupils who may seek non-academic routes to maintaining their self esteem. Hargreaves (1967) in a study based in a secondary modern school found that an anti-school subculture developed amongst the lower stream boys. Lacey (1970) made similar findings in a grammar school which is particularly interesting as these boys were high achievers who had presumably been academically-promising, successful learners at primary school. This challenges the idea that low ability groups

simply bring together pupils with inherently anti-school attitudes and thereby concentrate and reinforce these behaviours.

3.4 The effect of ability grouping on quality of educational experience

Differences in the quality of educational experience could contribute both to the divergence in attainment between high and low ability groups and to the polarisation of pupil attitudes.

3.4.1 Differences in curricula

Many studies consider systems where different curricula operate for pupils of different abilities and it seems likely that these circumstances would result in different outcomes. However, this is not currently the situation in the UK where, since the ERA (1988) introduced a National Curriculum for England and Wales, all pupils have had the same curriculum entitlement, although at GCSE teaching for different tiers of exam entries can still lead to some curriculum differences.

Research in the UK carried out since the introduction of the national curriculum shows that differences arise in the educational experience between high and low ability groups even when common curricula operate. A recent survey of teachers' views (Ireson & Hallam, 2001) of how they adapted teaching and learning for pupils of different ability found that a large proportion of teachers stated that they differentiated work, for example using different resources, according to the ability of pupils both within lessons and between groups but most said that lower ability pupils did not cover fewer topics.

3.4.2 Differences in pedagogy

These teachers also described differences in pedagogy with pupils in lower groups receiving a restricted range of structured activities with limited

challenge while higher ability pupils received a bigger range of more challenging activities. Typical lower ability activities included rehearsal and repetition, worksheets, comprehensions, and practical work; typical higher ability activities allowed more independence, more opportunities for discussion and encouraged pupils to take greater responsibility for their own learning. Stereotyped views of different ability groups seem to directly influence the type of work provided for pupils. Boaler et al (2000, p642) commented that:

> When the students were divided into ability groups, students in high sets came to be regarded as 'mini-mathematicians' who could work through high-level work at a sustained fast pace, whereas students in low sets came to be regarded as failures who could cope only with low-level work - or worse - copying off the board.

Similar findings were widely reported in earlier research by a number of authors (Oakes, 1985; Rosenbaum, 1978; Schwartz, 1981) and teachers' reports of classroom activities are supported by evidence from observational studies. For example, one study found low ability grade 8 and 9 English classes completing low challenge activities such as true-false and fill-in-the-blanks four to five times as frequently as higher ability pupils and also found teachers focussing on functional aspects of language such as grammar, punctuation and spelling rather than content in their comments on lower ability pupils' work (Gamoran, 1989).

However, the impact of differentiation is called into question somewhat by Gamoran et al (1995) who observed that while there were significant differences between low and high ability groups in the amount of discussion that took place, the total amount was so low (approximately 75 seconds per

day in the higher ability groups) that it would be unlikely to influence differences in attainment.

Teachers believe they are responding to the differences in pupils' abilities and differentiating accordingly, although there is evidence that pupils in lower ability groups consider the work too easy and inappropriate (Ireson & Hallam 2001, Boaler et al, 2000). However, one important function of reducing the level of challenge may be that it simultaneously reduces the risk of failure for both teacher and pupils.

Schwartz (1981, p111) describes the situation as follows:

> *High rank pupils who are likely to succeed and contribute positively to the teachers' professional image are perceived as ideal pupils whose specific educational needs the teacher is capable of meeting. By contrast teachers tend to distance themselves from lower ranked pupils viewing them more as an unreachable group than as a series of individuals with distinctive educational problems. Rather than risk professional failure with pupils whom they fear they will be unable to motivate teachers often make fewer demands on low-rank pupils and apply less exacting standards to their own performance with them.*

3.4.3 Differences in classroom management

Expectation of poor behaviour in low ability groups is another factor that may lead teachers to favour certain approaches as a means of class management. Teachers are likely to be primed to adopt these approaches through prior experience with similar classes. These expectations may also give rise to observations (Good & Brophy, 1974) that teachers are more critical of misbehaviour from low ability pupils than they are of higher ability pupils.

3.5 Summary

Ability grouping has been a contentious issue for over a century and the practices adopted by schools are subject to political as well as educational influences. However, the effects of ability grouping systems are fairly consistent: they bring about divergence in achievement between high and low ability pupils along with a polarisation in attitudes towards school and learning. A number of authors (Nystrand, 1975; Pallas *et al*, 1994) have put forward explanations for the effects of ability grouping. Possibilities include the self-fulfilling prophecy of pupils' own expectations, teacher expectations and the effects of different educational experiences, such as different curricula, quality of teaching and the influence of peer group on learning. However, it is apparent that for low ability groups teaching and learning interact in what can become a vicious circle of low teacher and pupil expectations, low teacher and pupil motivation, unchallenging work and limited curriculum, and poor pupil response and behaviour. The intimate interaction of teaching and learning makes it difficult to pinpoint the cause.

The next chapter considers the idea that the process of assigning pupils to ability groups triggers the development of social group identities. For pupils in the lower ability groups these identities are stigmatised with respect to the academic aims of the school and this impacts on their learning behaviours in the classroom. The suggestion is that it is pupils' adaptive responses to their social identities which initiate the 'vicious circle' and, hence that the responses of teachers are secondary, pragmatic adaptations to the behaviours of pupils.

Chapter 4   Social identity theory

4.1 Introduction

This chapter presents an outline of how social identity may be a critical determinant in the emergence of anti-school sub-cultures, disaffection, poor behaviour and low achievement amongst pupils in lower ability groups. This is in contrast to other accounts of these phenomena which attribute the responses of lower ability groups either to pre-existing characteristics or to their responses to differential treatment by education systems. It is my contention that, while these may be contributory factors, it is the impact of ability grouped systems on social identity which is the dominant element.

This chapter will therefore consider how the social context of ability grouped systems influences individuals within the system and predisposes them to define their own identities, and the identities of others, in particular ways. It will also consider how these social identities, which emerge in response to ability grouped systems, might be powerful influences on social and learning behaviours. It begins with an exploration of the process of transfer to secondary school and how this is experienced by children of this age and goes on to consider how this process might contribute to the emergence of pupils' identities as learners and in particular how a banding system might lead to the emergence of stigmatised identities. Finally it will look at possible mechanisms by which a stigmatised social identity might impact on learning and classroom interactions.

4.2 Transfer to secondary school

Transfer to secondary school presents pupils with a significant change to the way that their social world is organised and presents challenges to their identity which are likely to require them to adjust their view of themselves. This case study considers the impact on pupils' identities of the transfer from primary to secondary school: it is therefore important to have an understanding of the nature of this change and the challenges that it presents.

4.2.1 Why transfer at 11 plus?

In England the age of transfer to secondary school is predominantly at eleven years old. The origins of this practice can be traced back to the early twentieth century and an interaction between the psychological beliefs that prevailed at that time and the drive for social reform.

Individual human development was seen as mirroring human evolution with childhood corresponding to primitive existence and adolescence as a renaissance when advanced human characteristics emerge. Measor and Woods (1984, p172) cite the work of Stanley Hall (1904) who described the beliefs about childhood and adolescence that were prevalent at that time.

> "[Childhood] *stopped short of the higher forms of reason and morality and thus was the age of 'external and mechanical training' when teaching should take the form of 'drill, inculcation and regimentation'.*"

> "[In adolescence] *the higher and more completely human traits are now born. Consequently, new educational techniques were necessary which made new appeals to 'freedom and interest'*".

Thus, the prevailing understanding was that these were two distinct stages in individual human development which required quite different educational

approaches and it would therefore be convenient if these took place in separate schools. The Norwood Report (Board of Education 1943) suggests that these ideas persisted as it identifies differences between primary and secondary schooling which are analogous with Stanley Hall's stages, i.e. that primary is for 'basic skills, aptitudes of mind and general ability' while secondary is for a 'special cast of mind to manifest itself'.

In social terms there were moves towards rationalising and expanding the education system. The Hadow Report (1926) proposed a single system of primary and secondary schooling with a clean break between the stages at 11 years old. This proposal aimed to unify a system which at the time consisted of elementary schools which continued up to the age of 13 or 14 and a range of secondary provision commencing at various ages from 10 to 13. The 1944 Education Act later confirmed the age of transfer as 11-plus as it set out its plans for secondary education for all and established the predominantly two tier system.

From the 1960s schools in some areas were reorganised into three tier systems with transfers at 8 and 12 or 9 and 13. These changes were driven by government reports such as the Plowden Report (1967) and also by changing views of child development which no longer supported such a dramatic distinction between childhood and adolescence. However, since then, the introduction of the National Curriculum in the 1988 Education Act has brought with it the notion of Key Stages and testing at the end of these Key Stages at the ages of 7, 11 and 14. These stages fit conveniently with the predominant two tier pattern of primary and secondary schools with a transfer age of 11, but

not with three tier systems many of which have been or are being phased out. So we have returned to a system where the age of transfer is predominantly 11. Educational arguments supported by beliefs about intellectual and social development could probably be amassed to justify virtually any age of transition. However, the reality is that there is probably not a single age (Nisbet & Entwistle, 1966) that will suit every child given that development is a continuous process and that, even if it is understood through a staged model, different children will progress through these stages at different ages.

4.2.2 The process of transfer

One advantage of the three tier system would seem to be that there is a more gradual transition from the 'family' pattern of social structure in early primary years to the less personal, more business-like environment of secondary schooling. This is effected by, for example, the gradual introduction of specialist subject teaching whilst pupils remain within the same institution. The two tier system, on the other hand, involves a more dramatic 'rite of passage' with children being cast into the adult environment whether they are ready or not. They are likely to experience changes in the location and scale of the institution they attend and the approaches to teaching and learning as well as to the social and practical organisation of school life.

Murdoch (1986) interprets the process of transfer to secondary school in terms of early anthropological ideas about rites of passage consisting of three stages: separation (leaving primary school), transition (the process of transfer) and adjustment (adapting to secondary school). Rites of passage are associated with notions of pain and mystery and so while school transfer is accepted as an inevitable part of growing up, there is also an instinct to protect children from

possible trauma by providing reassurance and support at this time. Murdoch (1986, p52) comments on the dilemma of whether schooling should

> "...emphasise the distinctiveness of different institutional level, highlight the process of transition and mark it with some degree of ceremony so as to help the child manage a status passage, or, whether it should soften the divide, blur the boundaries and ease the transition so as to reduce the strain of adjustment."

In recent years, in addition to concern for children's welfare, schools have increasingly come under pressure to address the drop in academic performance associated with transfer. Hence there is now a proliferation of initiatives aimed at easing the transfer. Galton et al (1999, p47) present a classification of initiatives on transfer which includes social initiatives aimed at reducing pupils' anxieties about their new school, curriculum initiatives aimed at maintaining continuity and progression, and post transfer programmes to enable pupils to adapt effectively to learning styles in the secondary school. What all these initiatives have in common is an implicit aim to support pupils in the process of establishing a confident and more mature identity as a learner and in establishing a positive relationship with their new school. In other words they all aim to support pupils as they face a substantial challenge to their identities during the process of school transfer.

4.2.3 How transfer impacts on individual identity

When children start a new school they need to adapt to the formal and informal customs of this school. Mayall (1996) summarises this as follows:

> "It is the task of the newcomer to learn these (customs) and learn them fast, if life at school is to be tolerable; children learn the intricacies of

school-appropriate social behaviour through formal instruction and through their competence in correctly interpreting signals and events."

In other words children use their social cognitive skills to understand their new situation. Durkin (2004, p289) presents two related definitions of social cognition. The first meaning which he describes as 'individual' social cognition takes the view that people make sense of other people and themselves through *"observing, interpreting and judging the social world"*. The second meaning he regards as a more truly 'social' social cognition as it acknowledges the importance of interpersonal interactions in which *"rather than people looking out, people are out there together, participating in a social world and affected by its processes"*. This second definition seems a more accurate reflection of reality as it considers the individual to be an active and engaged agent and cognition to be a product of social interaction. By contrast, the first definition regards the individual as a passive observer.

As children encounter their new school and use their skills to become accustomed to their new environment they are not only learning how to adapt their behaviour; the experience also enables them to learn about themselves and develop their identities. Hence, social cognition is important in the development of self concept and identity as we come to know who we are, not in isolation, but through our interactions with others. Again this is not a passive process and we are not simply 'looking-glass' people who accept and reflect all the opinions others hold about us. Durkin (2004, p297) notes that in the secondary age range correlations between self-ratings and ratings by others are quite low which suggests that the self-image for this age range does not simply reflect others' opinions. It is also likely that the process of dealing with

the conflict between our own and others' views contributes to the process of clarifying identity.

Mayall (1996, p81) describes several examples where children's views are at odds with the views of adults. One of these concerns the fundamental issue of 'work' in schools. She describes the adult view that *"children are projects of adult work"* and where the adult work consists of delivering a formal curriculum and ensuring appropriate socialisation. She contrasts this with a division of labour approach which views children as contributors.

> *"Through their specialised work of learning at school, in acquiring the knowledge and skills needed for taking up socially accepted activities as adults, they are engaging in both productive and reproductive work. They are also providing work for adults..."*

Mayall says that this presents children with contradictory experiences of understanding that they are working while at the same time understanding that their work is undervalued. Many children take their school work very seriously - it is after all their contribution to society.

4.2.4 Pupil perspectives on the process of transfer

In this study we have 11 year olds who had in many cases, because of the very stable nature of the community in which they lived, spent their time since nursery school with the same group of children. Even if pupils have only been together since the start of primary school this establishes a very secure situation in terms of peer group and peer relationships. Added to this at primary school pupils are on the whole taught by a single class teacher so the social unit of the class has a clear adult authority figure and role model. The primary school is structured in a similar way to a family with the

parent/teacher in charge of the siblings/class. As such it is a social structure which is likely to be easily comprehensible to children. Primary schools are also much smaller than the secondary school they feed into.

When pupils are transferring to secondary school they have to deal with a substantially different and more extensive social structure without the security of a familiar peer group and home class room, and without a constant parent figure for guidance. They have to adapt to a peripatetic life carrying all their possessions from one room to another and where the rules of engagement vary from one teacher to the next. They go from being the oldest pupils with a range of responsibilities to being the youngest, from the physically most developed to being the physically least developed and from being the people who know the most about the formal and informal culture of their school to being the people who know the least. In other words they go from being big fish in a little pond to being little fish in the big pond of their year group, and krill in the ocean of the entire school.

There are many studies which set out to access the pupil perspective of transfer using qualitative methods such as pupil interviews, essay writing and questionnaires (Youngman, 1986; Galton et al, 1999). One study by Measor and Woods (1984) is of particular interest for two reasons; firstly they use ethnographic methods which provide a richness of data not accessible by other methods and secondly they introduce the notion of identity as part of their analysis.

As participant observers Measor and Woods followed a group of children from their final year of primary education in 1979 through their first year of secondary education and carried out observations, interviews and data

collection through written assignments and pupil diaries. The transition experience they studied could be described as a 'fresh start' for all the pupils involved as they were placed in mixed ability classes. Assessments that took place in the secondary school were used to arrange sets for maths, science and modern languages by the end of the first year but in all other subjects they continued to be taught in their mixed ability classes.

Part of the work of Measor and Woods (1984, p19) involved the exploration of the myths associated with transition and how these represent the challenges to identity that pupils will experience. They categorise these myths as follows:

1. *Situations and activities making new demands of harshness and toughness in the new secondary school world in both formal and informal cultures.*
2. *Sexual development.*
3. *New forms of knowledge and work.*

Their examples of the first category include the 'head flushed down the toilet' myth and myths surrounding a certain teacher's severe approach to discipline, of the second category warnings about a male homosexual teacher, and in the final category the horrors of laboratory dissections. In my experience, similar myths are still in circulation, although the second category is unlikely to be discussed openly with teachers involved with the transfer process. Measor and Woods consider that these myths not only express anxiety but also operate as warnings about the forthcoming challenges to pupils' identities in terms of dealing with the secondary school which *"represents a new, more impersonal state, where the inner self cannot any longer be safely revealed"*.

Measor and Woods (1984, p59) also observed the classroom processes involved with pupils drawing comparisons between each other in terms of ability. Durkin

(2004) notes that comparison with others is part of the process of establishing self concept and a social identity and that it is a process that begins to operate with pre-school children. He refers to Festinger's social comparison theory (1954) which holds that *"in contexts where there is no firm objective criterion of performance or opinion we look to other people to determine a basis for evaluating ourselves and our ideas."* (Durkin, 2004, p317). This notion of social comparison may be particularly relevant for pupils who are placed in different ability groups without necessarily being aware of the criteria being used.

4.2.5 Friendships

A final point I will draw from Measor and Woods' work concerns the building of allegiances with their peers. They identify three distinct forms of pupil groups: cooperative groups, friendship groups and 'best friends' and describe how these allegiances are negotiated during the first year of secondary school. Cooperative groups consist of those pupils who established a 'professional' relationship and are prepared to work together in some way in the classroom context, for example, through the sharing of equipment. Within cooperative groups relationships could become more personal and friendships could develop. 'Best friends' are more common with girls than boys.

Asher and Parker (1989, p6) identify seven main functions of children's friendships:

1. *Fostering the growth of social competence*
2. *Serving as a source of ego support*
3. *Providing emotional support in novel or potentially threatening situations*
4. *Serving as sources of intimacy or affection*
5. *Providing guidance and assistance*
6. *Providing a sense of reliable alliance*

7. Providing companionship and stimulation

Transfer to secondary school throws existing primary school friendships and allegiances into flux at the same time as pupils' come up against a situation which is "*novel or potentially threatening*". This undoubtedly adds another dimension to challenge pupils' social identity during the process of transfer. Galton et al (1999, p75-79) looked at how friendships affect learning at transfer and identified three key issues: friends as a source of support for learning, friends as a source of distraction, and characteristics in friends that affect working relationships. They note that while schools took account of the potential for social support they tended to overlook the role that friendships can play in providing academic support. They also comment that information tended to focus on the negative aspects of friendships by, for example, identifying pupils who needed to be separated. This suggests that at this critical time, when pupils are most in need of support to establish a confident identity in their new school, in addition to the inevitable collateral disruption, schools may be acting in ways that deliberately disrupt established relationships.

4.2.6 Transfer then and now

The research undertaken by Measor and Woods took place around thirty years ago. Nevertheless there are many things in common between the experience of pupils then and now as is demonstrated by common themes emerging from other studies (Murdoch, 1984; Galton et al, 1999). However, there are also differences which may influence the development of pupils' identities.

One difference relates to the social organisation of schools. In the school described by Measor and Woods pupils were taught in mixed ability classes for all but three subjects and these mixed ability classes were also part of the pastoral and house system. So although the secondary school was bigger and more complex than the primary school, the number of formal social groups to which any individual pupil belonged was small and their identity and relationship with the school was clear; they belonged to class X which was part of house Y which was part of school Z. In the belief that it will maximise their academic attainment, many schools now place pupils in groups by ability and some go as far as placing pupils in different sets for every subject. An unintended consequence of this practice can be that any individual pupil can belong to a large number of formal social groups; this is likely to be disruptive to the essential process of establishing friendship groups and informal support networks.

Another difference is in the very high status that performance data now has. Where pupils are placed in bands or sets, the action of organising a system around ability communicates that this is an attribute that is highly valued by the school. Where pupils are grouped by ability the institution has, in effect undertaken a formal procedure of social comparison and pupils will thus occupy an officially-sanctioned place in the ability hierarchy. Pupils will use their social cognitive skills to process this information and hence, their awareness of their position will contribute to their identity and self-concept.

4.3 Individual and group identity

Transfer to secondary school has the potential for influencing pupils' social identity at an individual level. However, for the majority of time while pupils are in school they are dealt with as members of a group rather than as individuals. It is often the case that individually pupils will declare a commitment to learning, behaving well and achieving at school, and so it might be expected that collectively this would create groups who engaged with learning. However, despite positive attitudes at an individual level, a group may display challenging behaviour and confound the attempts of teachers to help them learn effectively. I intend to explore this paradox by looking at the processes by which group identities emerge.

I have already raised the issue of social comparison being an important factor in the establishment of individual identity. When this process operates at a group level it involves the establishment of collectively held beliefs about the characteristics of the in-group (us) and the out-group (them). At this level it can be described as stereotyping. Stereotyping is often regarded as a derogatory process as it is strongly associated with prejudice and discrimination. A useful distinction between these terms is provided by Fiske (1998) who describes stereotyping as a cognitive component, prejudice as an affective component and discrimination as a behavioural component. In the context of ability grouping the cognitive component, stereotyping, would be associated with the process of categorising and identifying group characteristics; the affective component, prejudice, would be associated with the feelings of individuals towards members of both in- and out-groups; and the behavioural component, discrimination, would be associated with actions which

advantaged or disadvantaged one group or the other. These distinctions can be used as a framework for interpreting many of the issues associated with ability grouping. Stereotyping, prejudice and discrimination all have potential for impacting on pupils' social identity within the school.

4.3.1 Stereotyping: self and other categorisation

Stereotyping is the cognitive component of this process. Oakes et al (1994) provide a summary of the development of the study of social stereotyping which shows that beliefs about the process have evolved since early work, which saw stereotyping as a deviant or abnormal response, to the current view which regards stereotyping as being a natural consequence of the cognitive processes through which humans seek to make sense of their surroundings. This view considers that we operate with categories (so for example, furniture includes tables and chairs) in order to determine an appropriate response (so for example, do you sit on it or put your coffee on it). Oakes et al (1994) suggests that while stereotyping can be considered as a cognitively economic way of processing information, it can also in some contexts be a more valid way to interpret a situation. She uses the example of a member of the public interacting with a police officer on duty where the salient feature is membership of the category, police officers, rather than any individual characteristic. Hence, group categories can be a valid way of helping us to manage our interactions with other people as there are socially-determined responses appropriate to particular people because of the group to which they belong.

An important part of establishing a group identity consists of social comparison and developing an understanding of the characteristics of our own in-group in

relation to other out-groups. Part of this process involves accentuation whereby individuals will seek to exaggerate their similarities to their in-group and their difference from their out-group. Tajfel (1981) carried out *"minimal group"* experiments that suggest that nominal allocation to a group is sufficient in itself to trigger this process where the in-group to which the individual is assigned is favoured over the out-group and efforts are made to accentuate differences between groups. In these experiments school children or adolescents were allocated to one of two groups - either Kandinsky or Klee and this allocation was supposedly based on a preference test for one or other artist. Experiments were also done where there was no suggestion of similarity between group members, for example assigning students to red or blue group. These students never met as groups so there was no social interaction between or within these groups and there was no attempt to instigate any kind of competition between groups.

In one experiment, students were asked to divide points which were worth money between members of the two groups, choosing the relative amounts using a matrix. So a student could choose to give their in-group 23 points and their out-group 18 points, or they could choose other allocations, for example, 7/1 or 13/13. Four strategies were possible: fairness, maximum difference, maximum joint profit, and maximum in-group profit. Of these maximum joint profit exerted least influence - even though all the students involved in the experiment knew each other and would have benefited most by extracting the maximum amount of money from the researchers in this way. Fairness was a significant variable but maximum in-group profit and maximum difference between groups were the most preferred strategies.

Tajfel interpreted these results as demonstrating that competition and the need to differentiate was introduced into the situation by members of the groups in order for *"the establishment of psychological distinctness between the groups"* (Tajfel, 1981, p273).

These experiments seem to suggest that allocation to a group is, on its own, enough to trigger the generation of different group identities; experience of differential treatment is not a necessary condition. Pupils will, based on group allocation, seek to exaggerate differences between their in-group and the other out-groups and also seek to identify similarities within their group. In this way they will begin to establish a common understanding of the characteristics of both in-group and out-group categories. This will therefore have consequences for the way that pupils think about and judge themselves and others.

4.3.2 Adopting a stigmatised identity

It is assumed that given a choice people will opt to belong to a group which has positive characteristics. However, we do not always have a choice about which groups we belong to. Research into the consequences of having a stigmatised identity has tended to focus on racial and gender issues and has often tended to concentrate on the attitudes of the dominant groups rather than the experience of being part of a stigmatised group. I believe that it is legitimate to extend this notion of stigmatised identity to the context of ability grouping in schools and to consider that lower ability groups adopt stigmatised identities.

In trying to understand how this might come about it is really important to consider the issues from the standpoint of the child. So I am going to return to

two of the challenges identified by Measor and Woods (1984, p19) that face pupils when they move up to secondary school. These are

1. *New forms of knowledge and work*
2. *Situations and activities making new demands of harshness and toughness in the new secondary school world in both formal and informal cultures.*

If children are going to succeed at secondary school they need to establish positive identities with regard to these criteria.

The vast majority of children are concerned about whether they will be able to meet the challenge of their new work but lower ability pupils are immediately at a disadvantage if a school has put them through a formal comparison using some measure of ability and has categorised them as less able; apparently the school believes them to be less capable of dealing with the challenge of 'new forms of knowledge and work'. Through the process of accentuation the lower ability pupils may come to see themselves as the ones who won't be able to do the work, and the other higher ability groups are the ones who will. If, as Mayall (1996) suggests, children see learning and what they do at school as serious work and their way of contributing, then undermining their confidence seems likely to alienate them by making them feel that they are not in a position to contribute. The majority of schools espouse ambitions to educate the whole child and it is a clear statement of intent in the national curriculum. However, if a measure of ability is the single attribute chosen by the school to determine group placement then this is likely to be seen as of paramount importance.

The formal culture of a school is associated with its core purpose: to enable pupils to do their work which is learning. If lower ability pupils have defined one of their characteristics as being unable to learn and do work properly then they may feel that they are not in a position to make a contribution to the formal school culture.

Informal cultures operate by different rules: here academic prowess (being a "swot") might even be a disadvantage. Once pupils are disengaged from the formal culture of the school the informal culture may be the only area where these pupils can contribute. Unfortunately contributions in this area are not always socially acceptable and may lead to further disaffection.

4.3.3 Dealing with stigma

Pupils who are designated as middle or lower band find themselves as part of a group which has few advantages to the individual and is viewed negatively both by members of the group itself and by the out-groups of teachers and top band pupils. This links to the core feature of stigma – that a stigmatised person has an attribute that conveys a devalued social identity within a particular context. Within the context of a school that uses ability grouping, the attribute 'lower ability' has many characteristics that would lead it to be regarded as a devalued social identity. The individual responses of pupils within a group to the stigma attached to their identity may help to explain the emergence of challenging behaviour in middle and lower band groups. Research in this area has focussed on situations where particular groups, for example women or African-Americans, have a stigmatised identity which includes being stereotyped as 'intellectually limited'. Crocker, Major and Steele (1998) consider that social stigma of this sort can have a *"pernicious effect on the*

academic achievement of stigmatised individuals". They note that when the stereotypes of intellectual limitation are widely held they present a threat to the stigmatised individuals who may respond in ways that exacerbate the situation and which may have *"costly consequences"* for both the individuals and wider society.

This situation has parallels with the situation of middle and lower ability groups who identify themselves, and are identified by the school community, as having intellectual limitations and who subsequently respond in a range of unhelpful ways.

Millar and Kaiser (2001, p77) describe a range of responses to stigma which are summarised in the table below. The responses are first categorised as either voluntary or involuntary. Voluntary responses are subdivided into *"disengagement coping"* in which people try to cope with the stress resulting from stigma by disengaging either physically or socially and *"engagement coping"* which involves trying to gain control over stressful events. Engagement coping is further subdivided into primary control coping which involves attempting to change the stressful situation and secondary control coping which involves attempting to adapt to the stressful situation.

These categories can be used as a framework for analysing and interpreting the observed behaviours of pupils. For example, distraction involves substituting other thoughts and actions for those associated with the stress of a stigmatised identity. This could include work-avoidance behaviours which pupils engage in to avoid academic work which is, for low ability pupils, strongly associated with their stigmatised identity.

Figure 4.1 Categories of responses to stigmatised identity
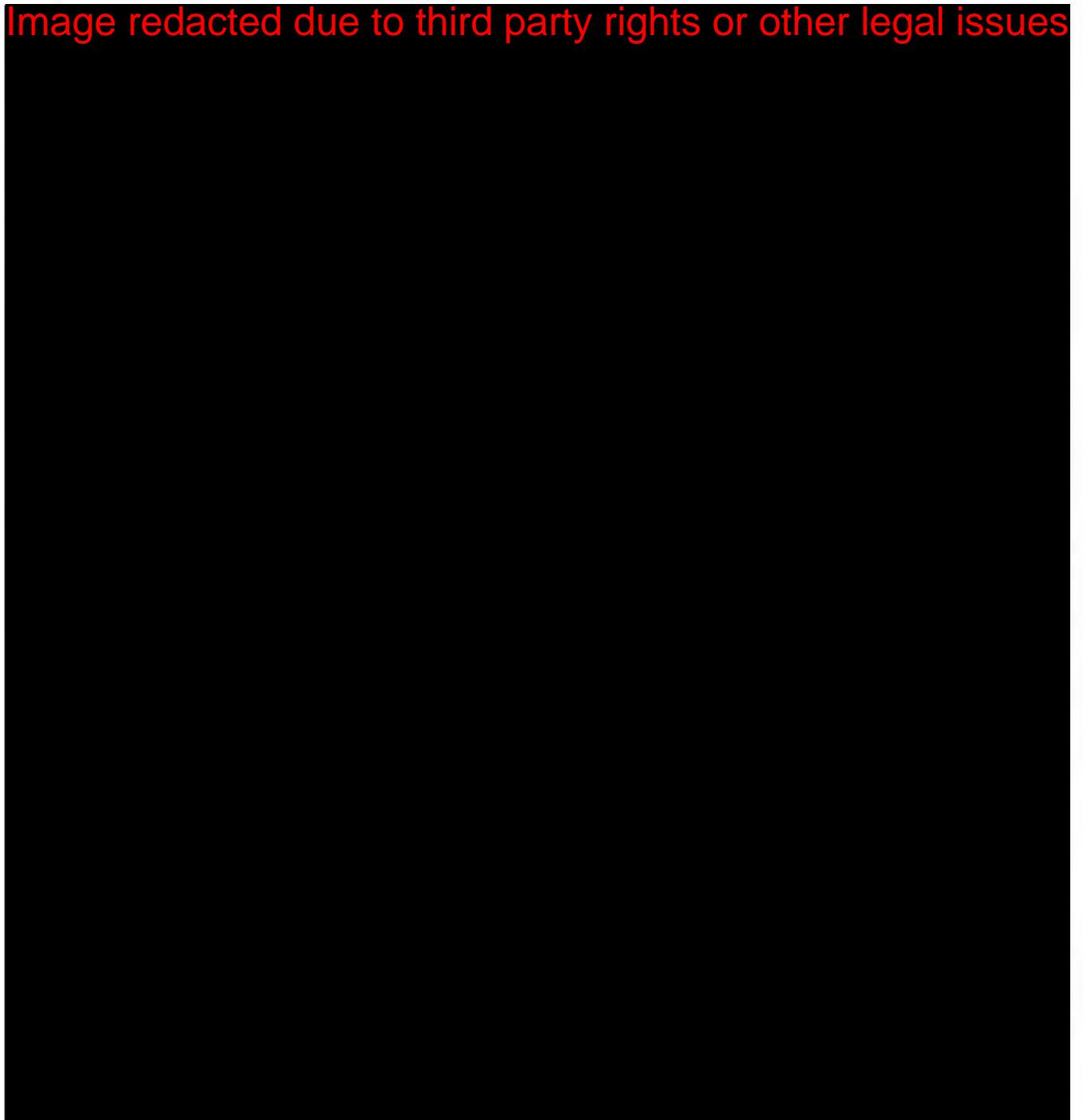
from Millar & Kaiser (2001, p77)

Crocker et al (1998, p536) discuss the consequences of ability stigma for women and African-Americans in the USA.

The perception that one is perpetually subject to devaluation in school - tantamount to the perception that one is subject to "incessant

disappointment" in the domain - is likely to lead one to avoid school as a "line" to carry. Overall self-esteem is thus preserved by excising the threatening domain as a basis for it. Once this is achieved - once one's values, preferences, and self-concepts have been realigned so that achievement in this area is not the basis of self-evaluation - then one becomes self-evaluatively impervious to the area.

This example describes the process of cognitive restructuring which amounts to learning to think about things differently so that aspects of identity not related to the stigma are valued more highly. For pupils this could mean prioritising social activities to the detriment of school work.

The idea that the underachievement of lower ability groups may be a consequence, at least in part, of responses to stigmatised identities has implications for practice within schools. Crocker, Major and Steele (1998, p531) comment that

> *"Understanding that the under-achievement of stigmatized individuals is a function of stigma rather than lack of ability suggests what sorts of interventions should be effective at removing barriers that stigma creates for achievement."*

4.4 Social identity and learning

4.4.1 Motivation and learning

Dweck (1986, p1043) cites a number of studies which suggest that the relationship between ability and motivation is not straightforward and that in some cases there is a negative correlation between ability and motivation. This suggests that, contrary to the commonly held stereotype, lower ability pupils are not necessarily inherently less motivated to learn. However, the relationship of lower ability pupils with learning in the classroom is

problematic. So, the next step is to consider how adopting a stigmatised identity could result in lower ability pupils displaying a 'maladaptive pattern of achievement behaviour' and hence have an impact on their learning. Dweck (1986, p1040) describes the difference between adaptive and maladaptive patterns of achievement behaviour.

> *The adaptive "mastery-oriented" pattern is characterised by challenge-seeking and high, effective persistence in the face of obstacles. Children displaying this pattern appear to enjoy exerting effort in the pursuit of task mastery. In contrast the maladaptive "helpless" pattern is characterised by challenge avoidance and low persistence in the face of difficulty. Children displaying this pattern tend to evidence negative affect (such as anxiety) and negative self-cognitions when they confront obstacles.*

Dweck considers that maladaptive or adaptive behaviour patterns arise from an interaction between the theories of intelligence held by the child, their goal orientation and their confidence in their abilities.

Hence, according to Dweck, once pupils have adopted the entity theory of intelligence and are operating with performance goals, then the determinant of their behaviour pattern is their confidence in their ability.

Figure 4.2 Achievement goals and achievement behaviours

Image redacted due to third party rights or other legal issues
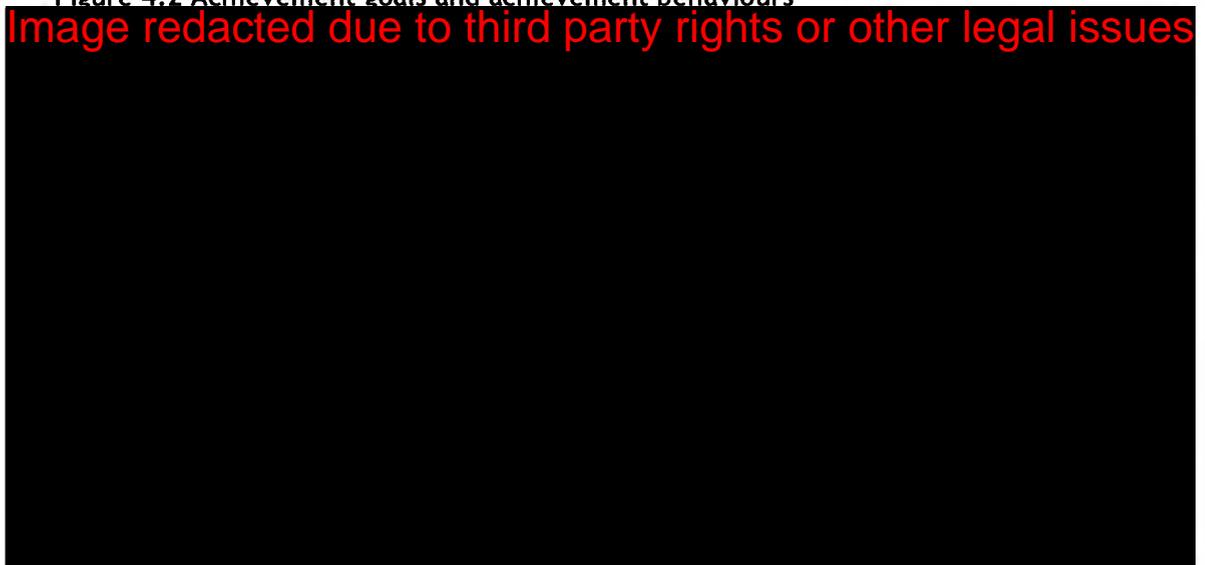
(Dweck, 1986 p1041)

It seems probable that experience of schooling influences children's beliefs about intelligence and where that experience includes frequent testing and measuring of ability and attainment it would seem likely that the entity theory would be reinforced. This also establishes a situation where 'performance goals' are the norm and have a high status within the culture of the school. Consequently, even if pupils were not naturally oriented towards performance goals then school practices might effectively impose performance goals on them.

If middle and lower ability pupils have adopted a stigmatised identity where one of the defining features is 'not being good at academic work' then it would seem highly likely that their confidence in academic work would be low. Dweck's work suggests that this would result in them displaying maladaptive, helpless behaviour patterns which would include avoiding negative judgements of their competence, avoiding challenge and having low persistence. For example, avoiding negative judgements could include minimising the effort made so that failure can be attributed to lack of effort rather than lack of

ability, avoiding challenge and having low persistence could include opting for closed rote tasks and giving up easily.

Performance goals might also impact negatively on higher ability pupils who might regard any activity that requires them to exert effort as a threat to their belief in their own ability.

4.4.2 Teacher responses to stigmatised groups: underlying prejudices

Teachers' prior experience of lower ability groups is likely to give rise to certain expectations about these pupils. This is likely to be the case even with student teachers whose own experience of school is likely to have been as part of higher ability groups and who may have some residual antipathy towards such pupils or anxiety about interacting with them. Thus teachers may well hold stereotypical views about the likely behaviour and attitude of middle and lower ability pupils. These stereotypes may, consciously or subconsciously, alter teachers' responses to pupils of different abilities, in other words, their stereotypical views may prejudice their behaviour towards particular groups of pupils.

Research about prejudice and discrimination has largely been based on issues such as racism or gender, however, the theories which have emerged could be applied more generally to any stigmatised group. I am going to use the categories described by Fiske (1998) as a framework for considering prejudice and discrimination against pupils in particular ability groups. However, it seems likely that the same principles would to apply to other disadvantaged groups within a school context such as pupils from minority ethnic groups.

Fiske begins with an early idea about discrimination, authoritarian personality theory, which focussed on blatant racism such as the anti-Semitism that led to the Holocaust. She goes on to say that as overt discrimination has become less socially acceptable, theories of subtle racism have emerged to explain the continuing disadvantage experienced by certain groups.

Figure 4.3 Categories of discrimination

Image redacted due to third party rights or other legal issues
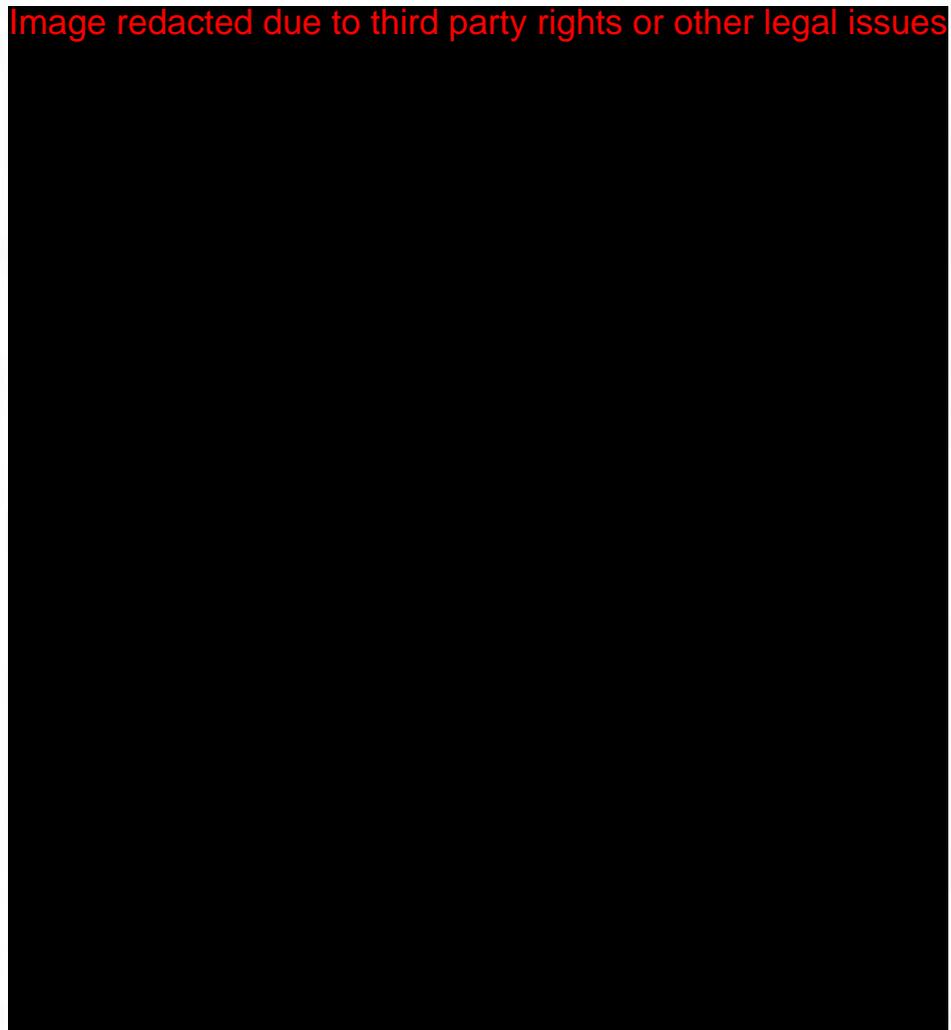
from Fiske (1998, p 360)

Evidence emerged that there was a discrepancy between words and deeds, in that in the forty years from 1942 to 1982 reported racial attitudes became far more positive while unobtrusive measures continued to suggest that the true attitudes had changed very little. Theories of subtle racism build on the idea

that *"the dominant affect was not hatred, leading to aggression, but rather ambivalence and discomfort, leading to avoidance"* (Fiske, 1998, p359).

Symbolic discrimination is where it is understood that expressing prejudice openly is unacceptable, so the grounds for argument are shifted to find apparently legitimate reasons for supporting policies or practices which disadvantage the target group. An example of this might be using 'appropriate differentiation', as a justification for perpetuating a discriminatory ability grouping system.

Ambivalent discrimination is where there are conflicting attitudes. There is a clear example of this with low ability groups where teachers may feel that such pupils are disadvantaged and deserving of support while at the same time these pupils are challenging as they do not work hard or behave well and so do not comply with expected norms. Ambivalence is associated with polarisation of responses such that good achievement by low ability pupils will receive high praise while inappropriate actions will attract great condemnation.

Aversive discrimination is where a person's discriminatory actions may conflict with their egalitarian self-image. Reasons other than discriminatory behaviour must be evoked to explain such actions in order to protect the self image. (I gave an example of my own experience of this situation in the introduction.)

Finally, there is dissociation which can exist between personal and cultural beliefs. Fiske (1998) comments on the different outcomes that dissociation has for high and low prejudiced people which can see low prejudiced people feeling guilty and adjusting their behaviour if they experience what they feel is an inappropriate, but automatic, cultural response, while high prejudiced people may externalise the conflict, become angry and complain about 'political

correctness'. In schools dissociation may arise where teachers who believe strongly in the efficacy of ability grouping are working within a mixed ability system or vice versa.

Within the formal culture of the school, teacher prejudice, if it exists, is likely to be more powerful than prejudice from other pupil groups because of the position of authority held by teachers. However, in order for any prejudice on the part of teachers to influence behaviour, attitudes or pupil performance it must be translated into concrete actions that in some way communicate the prejudice to the pupils. So we are looking for situations where teacher prejudices and preconceptions might influence their behaviour towards pupils. Evidence from research into stereotyping suggests that people respond more quickly to behaviours that conform to their beliefs about a particular group (Fiske, 1998). This evidence suggests that these are not conscious responses as differences in responses exist even when prejudice is not apparent from other measures. An example of this in the context of ability grouping might be that teachers feel that lower ability pupils are likely to be less well behaved and this primes them to be alert to incidences or poor behaviour, however minor. Teachers might overlook a similarly minor incident in a high ability group as they are primed to expect good behaviour. Over a long period sensitivity to certain aspects of pupil behaviour may produce significant differences in classroom interactions. Another example concerns the type of help that might be offered to pupils. Fiske (1998) when discussing evidence of *"subtle racism"* quotes a study by Crosby, Bromley & Saxe (1980) that found that lower status, stigmatised groups were offered less help, and less helpful help than those of higher status.

Discriminating against lower ability pupils by teachers and schools may be intentional or unintentional. Teacher prejudice might lead to discrimination against lower ability groups by, for example, putting less effort into their lessons, limiting classroom activities or accepting lower standards of work and behaviour. However, such actions may also be considered as a pragmatic response to the practical difficulties of dealing with a group of disaffected middle or lower ability pupils. They might also be considered as self-protecting responses on the part of teachers such that, in the same way that pupils may minimise effort in situations where they have little expectation of succeeding, teachers may protect themselves from feelings of inadequacy or failure by limiting the effort they make for groups of pupils who are resistant to learning and seem generally unappreciative.

4.4.3 Institutional discrimination or appropriate differentiation

While some actions are designed to ensure appropriately differentiated provision for students of different abilities, other actions are indisputably discriminatory, for example, if a school allocates poorer resources to lower ability groups. The argument about whether policies and practices amount to appropriate differentiation or institutional discrimination is one of the core issues in discussions about ability grouping. One particular action might be seen by those in favour of ability grouping as appropriate differentiation whilst those against it might argue that the same action amounts to institutional discrimination. Meanwhile, both sides would claim to have the best interests of all children at heart.

The kind of actions that are contentious include focussing on key skills for lower ability pupils which could be seen either as an unreasonable limiting of

access to a broad and balanced curriculum or as a means of ensuring that these pupils have mastered the basics. Similarly the provision of enhanced opportunities for "gifted and talented" pupils could be seen as either a means of stretching the most able or as a divisive initiative that favours the few and leaves the majority further behind.

Turnbaugh (1996, p23) comments on the issues that arise from the dichotomy of thought in this area:

> *This polarity and tension is reflected in policy proposals that demand both standardisation and individualisation of the curriculum.*
> *One way to understand this is to think of curriculum differentiation as a cultural practice. The culture of the US* (and similarly in the UK) *is one that is oriented around equally cherished but contradictory values of individualism on the one hand and the common good on the other.*

Included in this statement is the assumption that individualism and the common good are necessarily contradictory. The implication seems to be that individualism will inevitably disadvantage certain groups since if individualism did benefit everyone it would amount to the common good. It is this assumption, that individualism and the common good are competing interests and not both achievable simultaneously, that seems to underpin the arguments about ability grouping. Support for ability grouping and consequent curriculum differentiation is linked to values of meritocracy and individual attainment. On the other hand homogeneous grouping is linked to ideas of the common good and its supporters tend to express greater concern for issues of social justice and equality. Opinions about this issue are often held very strongly: they seem to be connected to individual belief systems and are only susceptible to evidence-based reasoning if it falls within the appropriate paradigm. Research

in this area is therefore likely to be more effective if it can provide evidence relating both to individual attainment and to social justice issues.

4.5 Summary

This chapter has described a theory that proposes that the process of grouping pupils by ability results in middle and lower band pupils adopting a socially stigmatised identity and that this has consequences for schools, teachers and above all for the pupils themselves.

The theory that is proposed in this chapter provides a framework for exploring why pupils are affected by being placed in ability groups and enables specific research questions to be set out which address each stage of this process. The questions which need to be addressed are:

1. How did the ability grouping procedures operate and were the cohorts of pupils comparable before grouping took place?

2. What evidence is there that pupils develop group identities and stereotypical views of in- and out-groups and how quickly do they arise?

3. What non-academic differences emerge between pupils after being placed in ability groups?

4. What differences emerge in pupils' beliefs about intelligence and their learning behaviours?

5. In what ways are teachers' responses different towards groups of lower or higher abilities?

6. Does ability grouping affect pupils' attainment?

The next chapter will consider the sources of data and practical methods adopted to investigate this theory. This will be followed by a separate findings chapter to address each of these questions in turn.

Chapter 5   Methodology

5.1 Introduction

The research strategy set out in Chapter Two presented the idea that this study took advantage of the data available within the school and that further data was collected, using a range of methods, as part of the research process. This chapter sets out details of the data collection and sampling methods used and considers the "*trustworthiness*" (Robson, 2002 p168) of these data in terms of validity, reliability and generalisability of the individual procedures and sets of data. It also considers the principles used in the analysis of data.

The school data held by the secondary school included information from the primary feeder schools, as well as performance data and pastoral records for pupils at KS3 and KS4. These data were used to establish the comparability of consecutive cohorts and to look at the academic progress of pupils of different abilities within and between cohorts as well as the impact of ability grouping on social indicators such as attendance. Research data were gathered from questionnaires and interviews with pupils and lesson observations and teacher interviews. These were used to explore the personal impact of ability grouping on individual pupils and the underlying group processes.

5.1.1 School sources of data

A wide range of data was available in the school and was collected for the final two banded cohorts (pupils who began Year 7 in 2001 and 2002) and the first mixed ability cohort (pupils who began Year 7 in 2003). A summary of the available data is given in Table 5.1 below.

Table 5.1 Availability of school data

School based data		Availability by year of entry to Year 7		
		2001	2002	2003
Data from primary schools	KS2 points score	Yes	Yes	Yes
	KS2 fractional levels for English, maths science and average	Yes	Yes	Yes
	Notes from primary teachers	Yes	Yes	Yes*
	Behaviour score Yr 6	Yes	Yes	Yes*
	Effort score Yr 6	Yes	Yes	Yes*
Personal & administrative data	Name	Yes	Yes	Yes
	Gender	Yes	Yes	Yes
	Date of birth	Yes	Yes	Yes
	Free school meals	Yes	No	No
	Primary school attended	Yes	Yes	Yes
	Band Yr 7	Yes	Yes	n/a
	Band Yr 8	Yes	Yes	n/a
	Band Yr 9	Yes	Yes	n/a
Pastoral data	Behaviour score Yr 7	Yes	Yes	Yes
	Absence (Authorised & unauthorised) Yr7	Yes	No	Yes
	Exclusions	Yes	Yes	Yes
	Detentions	Yes	Yes	Yes
	Behaviour reports	Yes	Yes	Yes
	Rewards	Yes	Yes	Yes
Performance data	CATS total, non-verbal, quantitative, verbal	Yes	Yes	Yes
	Yr 7 core subject assessments English, maths, science	Yes	Yes	Yes
	Yr 8 core subject assessments English, maths, science	Yes	Yes	Yes
	KS3 points score	Yes	Yes	Yes
	KS3 fractional levels for English, maths science and average	Yes	Yes	Yes
	GCSE core subject grades Maths. English, science	Yes	Yes	Yes

Yes*= data only available for 5 main feeder primaries (>75% of pupil total)

The data were held by the school in a number of separate data bases and in different formats and it was necessary to bring these together from the various sources and collate them in a single SPSS data base in order that they could be analysed effectively. The data that related to transfer from primary school and progression to KS3 were held by the Assistant Head responsible for KS3; GCSE data were held by the Assistant Head for KS4; pastoral data, including attendance, were held by the Pastoral Support Assistant; and personal details, including free school meals, by the school office.

5.1.2 Other sources of research data

The 'real world' research context had practical consequences for the collection of research data. One advantage was the freedom of access in order to conduct pupil questionnaires and interviews, lesson observations and teacher interviews. However, it also presented limitations as, unlike the school data which was collected routinely for all cohorts, the collection of these data was affected by the unexpectedly rapid change from a banded to a mixed ability grouping system. The change also affected the timing of lesson observations which were carried out when pupils were in Year 9. If there had been an opportunity to carry out observations in Year 7, data might have been obtained not only about differences in behaviour patterns but also about how early these differences emerge.

Table 5.2 below summarises the data that was gathered using qualitative methods.

Table 5.2 Availability of research data

Research data		Availability by year of entry to Year 7		
		2001	2002	2003
Pupil questionnaires	Year 6	Yes	No	No
	Year 7	Yes	No	Yes
Pupil interviews	Year 7 first term	Yes	No	No
	Year 7 third term	Yes	No	No
Lesson observations	Year 9	No	Yes	Yes
Teacher interviews		No	Yes	Yes

5.2 Data from primary schools

The data used to establish the comparability of cohorts at the start of secondary schooling included notes from primary teachers, behaviour and effort

scores and KS2 scores. These data also provided a baseline against which to compare progression through KS3 and KS4.

5.2.1 Notes from primary schools

Information about individual pupils was collected towards the end of the summer term by pastoral staff from the secondary school who visited the primary schools to meet with Year 6 teachers. These notes took the form of brief comments recorded on a database and included a wide range of information about positive attributes and talents, problems in school with behaviour or social skills, or issues about health, attendance or pupils' home situation. For a small number of cases (<2%) there were difficulties with interpretation due to the use by pastoral staff of euphemisms and codes and these had to be excluded from analyses.

There was considerable unreliability in these data as the comments were collected by different staff each year and there was no attempt to standardise the collection process. The lack of standardisation in procedures meant that individual staff might have biased questioning towards their own personal concerns, for example, behaviour or social concerns. The level of experience of staff and their relationship with the local community might also have had an impact on the quality of responses obtained from primary teachers. Despite these limitations it was still worthwhile considering these data as they were, in effect, a record of what the primary teachers considered the most important things to communicate to the secondary school about each individual pupil.

5.2.2 Behaviour and effort scores

The secondary school provided the feeder primaries with a standard scale (Table 5.3) by which to judge scores for behaviour and effort for individual

pupils. The aim of this was to collect data to enable comparisons to be made between pupils from the different feeder primaries.

Table 5.3 Criteria for behaviour and effort scores

Behaviour score	Effort score	Criteria
1	1	Excellent
2	2	Good
3	3	Satisfactory
4	4	Poor
5	5	Cause for concern

However, for each cohort there were more than ten different teachers interpreting and applying the scale, and they were making their judgements in different contexts, as primary schools may vary in their standards of behaviour and expectations of pupils. Hence, there were issues of reliability with respect to the consistency with which this scale was applied. This lead to concerns about the overall validity of the data as a measure of behaviour and effort. Table 5.4 below shows the mean behaviour and effort scores for the different primary feeder schools.

Table 5.4 Mean behaviour and effort scores of primary feeder schools

Primary School number	Mean behaviour scores			Mean effort scores		
	2001	2002	2003	2001	2002	2003
1	1.50	1.48	1.94	2.29	1.43	2.16
2	1.75	1.56	1.39	1.97	1.87	1.83
3	1.72	1.57	1.55	2.44	1.96	2.00
4	1.68	1.10	n/a	1.95	1.10	n/a
5	2.00	1.89	n/a	1.94	2.57	n/a
6	1.20	1.18	2.16	1.30	1.24	2.16
7	1.43	1.50	n/a	1.41	1.42	n/a
8	1.25	1.83	1.45	1.50	1.67	1.59
9	2.16	1.61	n/a	1.88	1.45	n/a

n/a Data not available from minor feeder primary schools for 2003 cohort

These showed considerable variation both between schools and within schools from one year to the next. This variation was likely to be due to a combination of genuine differences between behaviour and effort and variability in the

application of the criteria. However, despite some inherent unreliability, these were the only data available from Year 6 for use as a baseline when making comparisons between cohorts and with behaviour scores of pupils at the end of Year 7.

5.2.3 KS2 scores

The results from the KS2 SATS were collected from primary schools and were available for all pupils except for the very small number (<1%) who joined the school in Year 7 from outside the area. The results were recorded as fractional levels for English, maths and science which were calculated by the school from the raw scores for each child and an average of the three scores. It was this average KS2 fractional level which was used to determine band placement for the banded cohorts. The precision to which this was calculated or recorded varied from one year to the next. The lower level effectively limited the precision of the data that could be used when making comparisons between cohorts. The KS2 points score for each pupil was also recorded.

5.3 Performance data from secondary school

Performance data included various measures of attainment or aptitude, which arose either from internal assessments, generated and marked within the school, or external assessment, generated and marked by an outside agency. Performance data includes:

- CATS scores

- Year 7 and 8 internal assessments

- KS3 SATs scores

- GCSE scores

These data were used to look at the academic progress of pupils of different abilities within and between cohorts.

5.3.1 CATS scores

In the first half term of Year 7 all pupils took the Cognitive Abilities Tests. These tests were carried out under exam condition and were externally marked. They included three batteries: verbal, non-verbal and quantitative, which *"are designed to appraise the pupil's ability to reason using different kinds of symbolic material"* (CAT Administration Manual, 1986) and provided Standard Age Scores in the range 70 to 130 for each battery separately. The school's databases provided separate scores for each battery and a 'total' score which was the mean of the three scores. For the three cohorts in this study exactly the same tests were used each year. These tests were therefore very important in providing an absolute comparison between the characteristics of different cohorts at the start of Year 7.

5.3.2 Year 7 and 8 internal assessments

The results of the final Year 7 and Year 8 assessments were available for all three cohorts. However, there were several reasons why school assessment data should be approached with caution.

These assessments were not done under exam conditions but were completed in the classroom during normal lesson times. In 2001 there was no attempt at standardisation and assessment tasks varied from one class and teacher to the next. From 2002 onwards the assessments should have been standardised so that the whole of each cohort was taking the same test. However, the assessments were not standardised from one year to the next. So, for example, in 2002 all of Year 7 completed the same English assessment but this

113

assessment was different to the one taken by all of year 7 in 2003. There were also differences in the way that results were recorded (percentages in 2002, NC levels in 2003) that made comparisons between cohorts difficult.

There was no standardisation of the procedures regarding preparation for the assessments, nor was there any moderation or standardisation of marking. This meant that internal assessments were more open to being influenced by the approach taken by individual teachers. For example, some teachers might prepare pupils for assessments by providing very detailed revision materials while others might take the view that these assessments should be an induction into the real world of exam taking where the teacher cannot advise on the precise content of a test. Such differences could clearly influence the outcome of an assessment.

The differences in assessment procedures between years and classes meant that these data could not be considered reliable enough to make comparisons either between or within cohorts.

5.3.3 KS3 scores

The results from the KS3 SATS were recorded in the same ways as the KS2 SATS with fractional levels for English, maths and science and an average which was calculated by the school from the raw scores for each child. The KS3 points score for each pupil was also recorded.

The KS3 SATS tests were externally marked and it might therefore be assumed that there would not be issues of validity or reliability such as those which arose with school-based assessments. It might also be assumed that the distribution of KS3 scores might approach a normal distribution given the population of around 220 pupils. However, some of the data sets showed

unusual distribution patterns. For example, Figure 5.1 shows the KS3 fractional levels in science for the 2003 cohort with peaks at 5.0 (10 pupils), 6.0 (30 pupils) and 7.0 (20 pupils); these are the minimum scores in each level. Meanwhile there were no pupils who scored 5.9 or 6.9 and only 1 who scored 4.9. This had the fortuitous effect of increasing the number of pupils in the higher level and, as only whole levels are reported in league tables, this had benefits for the school.

Figure 5.1 Graph of distribution of KS3 fractional levels in science SATS (2003 cohort)

KS3 Science fractional level

Year of entry: 2003

Frequency

Mean =6.107
Std. Dev. =0.86016
N =218

KS3 Science fractional level
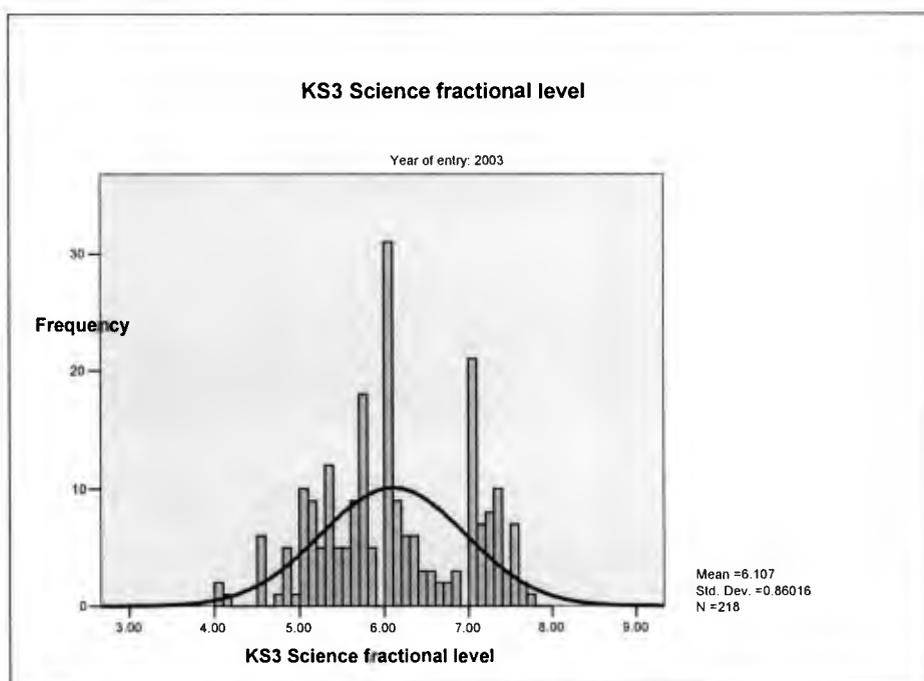
Similar patterns could be seen with other sets of KS3 data with all three cohorts and subjects (see Appendix 1) although it is a matter of speculation what might have caused these deviations from normality. The pressure on schools from targets and league tables has encouraged the practice by schools of returning borderline papers to examiners for re-marking. It is possible that these patterns of KS3 data, with reduced numbers of borderline scores, may be a consequence of some marking practice at national level, for example,

reassessment of borderline papers before they are sent out to schools in order to reduce the numbers of papers returned.

The degree to which these data deviated from a normal distribution made it difficult to carry out any analysis which was based on looking at the way the distribution of assessment scores varied over time in the banded and mixed ability cohorts or at whether ability grouping produced a greater spread of scores. However, other analyses, such as comparisons of means could still be used.

Another concern with KS3 data was the variability of the English scores from one year to the next. Table 5.5 shows the mean fractional levels for each cohort for English, maths and science.

Table 5.5 Mean KS2 and KS3 fractional levels for 2001, 2002 and 2003 cohorts

		Mean fractional levels		
		2001 N = 233	2002 N = 244	2003 N = 229
KS2	Average	4.58	4.58	4.69
	English	4.57	4.46	4.59
	Maths	4.50	4.51	4.60
	Science	4.72	4.74	4.80
KS3	Average	5.77	5.88	5.99
	English	5.83	5.60	5.58
	Maths	6.01	6.08	6.26
	Science	5.62	5.89	6.10

The mean fractional levels for maths and science seemed quite stable over time and show a gradual increase year on year. However, the English mean

fractional levels at KS2 go down then up and at KS3 steadily down. Maths and science fractional levels might, therefore, be considered as more reliable measures of pupils' attainment when making comparisons between consecutive cohorts and when considering progression from KS2 to KS3.

5.3.3 KS4 scores

At GCSE only the core subjects of English language, maths and science have been included for the purposes of this study. These were the same core subjects that were tested at the end of KS2 and KS3 and enabled an analysis of the progression of pupils between Key Stages 2, 3 and 4 to be made. The range of GCSE subjects available and the introduction of courses such as the GNVQ in ICT which has equivalence to 4 passes at GCSE made it difficult to analyse overall measures of attainment at the end of KS4. For the purpose of analysis GCSE grades were converted to a numerical scale from Grade G=0 to A*=8.

5.4 Secondary school personal and pastoral data

The information held by the secondary school included both personal and pastoral data.

Personal data was straightforward factual information such as primary school attended, gender and date of birth which was held by the school for all pupils.

The pastoral data included records of 'events' such as awarding of merit certificates, or sanctions such as detentions, behaviour reports and exclusions from class.

Attendance and behaviour scores were both considered reliable sources of data. Attendance records are legally required and, presumably, accurately kept and mean behaviour scores were calculated by an Assistant Head from

scores recorded by individual subject teachers using the same criteria for determining these scores as those used by the primary teachers.

Records of 'events' were examined but were not considered reliable due to concerns about the consistency of recording both between and within years and so were not included in analyses. This was unfortunate as these data had the potential to provide useful information about the relationship of pupils to the school.

5.5 Pupil questionnaires

The Year 6 questionnaires were administered by the school librarian when the pupils visited the secondary school towards the end of the summer term of their final year in primary school. The Year 7 questionnaires were administered by tutors, towards the end of each academic year. All questionnaires were administered to full cohorts of pupils and attempts were made to follow up any absentees.

Table 5.6 Completion rates for Year 6 and 7 questionnaires

	Number of pupils who completed questionnaires (% of cohort who completed questionnaires)	
	2001 Banded cohort	2003 Mixed ability cohort
Year 6 questionnaires	215 (97%)	Not administered
Year 7 questionnaires	196 *(89%)	221 (96%)

* Low percentage of returns as one tutor group set was missing. This tutor was retiring and cleared his desk of everything including the completed questionnaires.

The questionnaires given to Year 6 and 7 were originally developed in conjunction with the psychology department of the school and were designed as part of a school-based project prior to the start of this study. They included a self esteem scale, an attitude to work scale and some open-ended questions

which aimed to explore pupils' attitudes to ability grouping and their experiences (see Appendix 2 for full text of Year 6 Questionnaire). They were all based on the same format with minor variations to the open-ended questions to take account of the different circumstances of the pupils at the time.

Despite some weaknesses this format was retained to enable comparisons to be made since the rapid change to mixed ability meant that there would not be another opportunity to administer an improved version of the questionnaires to Year 6 pupils about to enter a banded cohort.

5.5.1 Starter questions

The first two questions were originally included to provide questions that all pupils would be able to answer. It was hoped that this would help pupils to settle down and engage them in the processes of completing the questionnaire and of reflecting on their experiences. This is in line with the suggestion made by Cohen et al (2000, p257) that *"Initial questions should be simple, have high interest value and encourage participation."*

In both the Year 6 and Year 7 versions, these questions were about which subjects pupils liked and disliked. Although the responses to these questions have not been analysed as part of this study they are a potentially valuable source of data about pupils' attitudes to learning and engagement with academic subjects.

Starting Questions Year 6 and 7
What is your favourite subject at school? Explain why you like this subject. My favourite subject is .... because .... Which subject do you like the least? Explain why you don't like this subject. I don't like .... because ....

5.5.2 Self esteem scale

The self esteem scale used in the original Year 6 questionnaire was the Lawseq scale (Lawrence, 1981; 1996). This is a brief scale which gives a measure of general self-esteem in a school context. For subsequent questionnaires consideration was given to using other scales for self-esteem or self-concept, such as Marsh (1990), which would give measures for global and academic self-concept; however, in order to enable comparisons to be made the Lawseq scale was retained.

Examples of questions include:

- Are there lots of things about yourself you would like to change?
- When you have to say things in front of other students, do you usually feel foolish or embarrassed?
- Do you often feel lonely at school?

The secondary version of the scale was used and it was marked according to the instructions which accompanied it (see Appendix 3).

5.5.3 Attitude to work scale

The "attitude to work" scale was included to try to get some idea of pupils' commitment to academic work. The range of possible scores is 0 to 10, with 0 indicating a poor attitude to work and 10 a good attitude. The scale was tested with one class of Year 7 pupils before it was used for the first Year 6 2001 cohort. No issues came to light at this stage.

Unfortunately, despite considerable discussion and piloting, some ambiguities remained in the attitude to work questions. For example, in question 6 "complete it as soon as possible" was designed to be the most positive statement; however, some pupils interpreted this as describing a situation where they rushed through the work with the minimum of effort.

> 6. When you get homework do you
>
>   (a) complete it as soon as possible
>
>   (b) leave it till the last moment
>
>   (c) forget about it completely

Another example was in question 4 where 'not bothered' was interpreted by pupils either as not caring about the test (a negative attribute) or as being calm (a positive attribute).

These issues came to light after the questionnaires had been administered to the first cohort of Year 6 pupils. However, the questions were left un-amended in later versions to enable comparisons to be made.

Concerns also emerged about the validity of bringing together in a single scale items that addressed a range of areas. For example, question 4 could be seen as relating to test anxiety and question 6 to personal organisation, whilst other questions related to social comparisons of ability and resilience.

Despite their limitations these data were included as they were the only available measure of pupils' self-reported attitude to work. The only other data which might be considered to reflect attitude to work were the pupil effort scores produced by primary teachers. These were provided for pupils at the end of Year 6 by their primary teachers. There was a positive, statistically significant but weak correlation between teacher assessed effort scores and Year 6 pupils own attitude to work scores (Pearson coefficient = 0.270 p=.000, N=196). In the secondary school effort scores were not recorded and the data available only concerns behaviour: neither primary nor secondary behaviour scores gave significant correlations with pupils' attitude to work scores.

5.5.4 Questions about banding

These questions changed with the circumstances of the pupils and had two main aims; to elicit pupils' opinions about the banding system and to collect data relating to pupils' experiences in banded or mixed ability groups. It is worth noting that while in 2001 "bottom" band was the commonly used and accepted description for the lowest ability group, by 2003 attitudes had changed and it had been replaced by the term "lower".

Cohort	Questions about banding
2001 Banded cohort Year 6	When you start at St Joseph's you will be placed in either a top, middle or bottom band class. Which band do you hope to be in? Explain why. I hope to be in .... band because .... Do you think it is a good idea to have top, middle and bottom band classes? Yes or No because ....
2001 Banded cohort Year 7	You have been here for nearly one year. How do you feel about the class you are in? Do you think it is a good idea to have top, middle and bottom band classes? Yes or No because..
2003 Mixed ability cohort Year 7	You have been here for nearly one year. How do you feel about the class you are in? If you were put in bands in Year 8 which band do you think you would be in? Top Middle Lower Would you like to be put into banded classes? Yes or No because ....

5.6 Pupil interviews

The aim of these interviews was to explore in more detail pupils' experiences of the banding system. Pupils from top and middle band classes were selected for interview using criteria including KS2 average fractional levels and gender. This approach to sampling could be described as purposive (Cohen *et al*, 2000, p103) rather than random and was designed to select groups who were similar in all respects except for their band placement.

For the 2001 cohort group interviews were carried out in November during the first term in Year 7 and again in June towards the end of Year 7. One particular group of pupils was also re-interviewed in March during Year 11. The interviews followed an *"interview guide"* approach (Cohen et al, 2000). The advantages of this approach were that interviews could remain fairly conversational whilst at the same time ensuring that identified issues were covered. Cohen et al (2000, p271) describe the weaknesses of this method as follows:

> *Important and salient topics may be inadvertently omitted. Interviewer flexibility in sequencing and wording questions can result in substantially different responses, thus reducing the comparability of responses.*

The aim of these interviews was that all pupils had the opportunity to discuss the issues outlined in the interview guides (see Appendix 4). Questions were designed to elicit information about transfer from primary school, class placement, level of work, differences between bands, how pupils would feel about moving up or down and whether they believed the banding system was fair.

In practice, there were variations between interviews, particularly with the younger pupils who differed considerably in their ability to communicate personal experiences and perceptions. Inevitably, some groups needed more probing (Robson, 2002) to encourage them to open up, whilst other, more talkative, groups needed to be directed back to the subject in hand.

Most of the interviews were undertaken with groups of pupils as it was felt that individually pupils were more likely to feel intimidated and so to be less forthcoming than if they were in a small group. Cohen et al (2000) comment on this approach and also provide a detailed list of issues relating to interviewing children. All interviews were recorded on audio tape so that the flow of the conversation was not interrupted by note taking and in order to avoid bias on the part of the interviewer. It also enabled full transcripts to be made in order that the language being used by pupils to describe their experiences could be analysed.

All interviews began with assurances about confidentiality of tapes and an outline of the purpose of the research. The purpose of the interviews was described in terms of finding out more about pupils' experiences, for example, of transfer from primary to secondary or of settling in at secondary school. In reality, the main purpose of the interviews was to find out about pupils attitudes to, and experiences of the banding system; however, specific reference was not made to this in the introduction nor in the main line of questioning in the interviews. Banding was only raised by the interviewer if it did not arise naturally from pupils' responses. Although this might be considered as misleading the respondents, the aim was to determine whether the banding system was an issue of significance to pupils and whether it was

part of their framework for interpreting their experiences of school. It was expected that they would raise the issue of banding spontaneously if it was sufficiently important to them.

5.6.1 Year 7 interviews with borderline pupils (November 2001)

Interviews were carried out with groups of pupils from top and middle bands whose KS2 SATS scores were close to the borderline between those bands. Information from the Year 6 questionnaires relating to attitude to work, self-esteem and expectations of band placement was also used in selecting the sample; CATS scores were not available at this stage. The purpose of this sampling was to have groups of pupils who were as closely matched as possible but who had been placed in different bands.

Table 5.7 Year 7 pupil interview sample November 2001

Group	Actual band	Expected band	KS2 average SATS score	Self esteem score	Attitude to work score	Gender
1	Top	Middle	4.67	18	9	M
			4.77	12	7	F
			4.77	19	5	M
2	Top	Top	4.73	15	3	M
			4.73	15	7	F
			4.67	21	6	F
3	Middle	Top	4.57	19	8	F
			4.53	19	8	F
			4.50	21	9	F
4	Middle	Middle	4.57	16	5	M
			4.50	12	7	M
			4.60	21	8	F

These pupils were told that the purpose of the research was to find out about transfer from primary to secondary school. The interview schedule consisted of questions to prompt pupils to talk about their school experiences beginning with questions about transfer from primary to secondary school. The next

section of questions aimed to elicit pupils' views of the banding system through indirect questions. For example, how did you feel when you found out what class you were in? Was it what you expected/hoped for?

If the issue of banding did not arise, direct questions were asked and, when necessary, discussion of the fairness of banding was prompted through the use of quotes from the Year 6 questionnaires. For example,

- Some pupils think that the banding system is not fair because everybody should be treated equally.

- Some pupils think that the banding system is a good idea because everybody gets the right level of work.

Towards the end of the interviews all pupils were asked how they would feel if they were moved up or down from the band they were in.

5.6.2 Year 7 interviews with borderline pupils (June 2002)

Four groups of pupils were interviewed. Two groups, one top and one middle band, were drawn from pupils who had been interviewed in November who had stayed in the same band throughout the year. The other two groups were selected from the small number of pupils had changed bands during the year. One of these groups consisted of pupils who had moved up from middle to top and the other of pupils who had moved down from top to middle.

Questions were asked about how pupils had settled in to the secondary school and how it was different from primary school. They were also asked to make comparisons, in terms of work, friends and responsibilities, between being top of primary and bottom of secondary, between tutor group and teaching group, and between top and middle bands. Those pupils who had been moved from one band to another were asked direct questions about this experience (appendix 5).

Table 5.8 Year 7 pupil interview sample July 2002

Group	Start of Year 7 band	End of Year 7 band	KS2 average SATS score	CATS total	Self esteem Score Yr6	Attitude to work score Yr6	Behaviour score	Self esteem yr 7	Attitude to work year 7	Gender
1	Middle	Middle	4.57	98	16	5	2.5	n/a	n/a	M
	Middle	Middle	4.50	99	12	7	2.5	17	4	M
	Middle	Middle	4.60	99	21	8	3.5	18	8	F
2	Top	Top	4.67	102	21	6	2.5	21	6	F
	Top	Top	4.60	102	14	6	1.5	18	9	M
	Top	Top	4.93	110	16	6	1.5	22	1	F
	Top	Top	4.73	97	16	9	2.0	24	4	M
3	Top	Middle	4.63	104	14	8	2.5	21	9	M
	Top	Middle	4.83	97	21	1	3.0	n/a	n/a	M
	Top	Middle	4.73	98	15	3	3.0	n/a	n/a	M
	Top	Middle	5.05	93	15	8	3.0	18	5	M
4	Middle	Top	4.53	101	20	9	1.5	18	7	F
	Middle	Top	4.60	109	13	8	1.5	14	5	F
	Middle	Top	4.13	101	14	8	1.5	10	6	F

5.7 Lesson observations and follow-up teacher interviews

Video recording was chosen as the method for recording lesson observations. It is a very flexible method of obtaining lesson observation data as recordings can be made at the most appropriate time for the teacher and the class without the researcher being present. The permanent record produced by video recording allows flexibility in the process of analysis, not only in terms of time, but also in terms of allowing the data to be revisited as the framework for analysis evolves. Video can also be used as an aid during interviews to further explore the issues with those involved. The use of digital video which can be

downloaded to computer greatly simplifies the process of analysis and transcription.

One alternative method for collecting data from lesson observations would be direct observation. This has the advantage that a wider view of the situation can be observed and hence a greater awareness of the context developed. However, it has the disadvantage that the framework for observation and analysis must be largely predetermined. Hence there is a danger that evidence will be collected relating to expected categories and a framework will be imposed on the observations rather than evolving from them. The primary data source cannot be revisited and the accuracy of the observations cannot easily be checked.

The presence of either video cameras or human observers will inevitably have an impact on the interactions which take place within a classroom. Speer and Hutchby (2003, p317) comment on the dilemma that the presence of an observer or recording device will distort the phenomena that the researcher seeks to analyse. They say that:

> *Concerns about the problem of reactivity or researcher effect are based on the idea that there is a realm of social interaction that is pristine and natural, but that the presence of a researcher or, more seriously, of recording devices, can only disturb, distort or otherwise contaminate. 'Natural' interaction, it is implied could only be captured for research purposes if the researcher could stand behind a one-way mirror or become, in the literal sense, the proverbial fly-on-the-wall.*

They suggest an approach that embraces the responses of participants to the videoing process as part of the data, rather than ignoring the interplay of recording device with the participants and making the methodological assumption that it has no significant impact. They discuss examples where

recording devices might result in participants limiting the topics they discussed or where the recording process itself becomes a topic for conversation. Lomax and Casey (1998) also discuss the issues relating to video methodology and how rather than considering interactions between the participants and the recording process as problematic these interactions can provide additional insight.

5.7.1 How was the sample of lessons selected?

Lesson observations were carried out with Year 9 pupils from the 2002 banded and the 2003 mixed ability cohorts either in the second half of the spring term or first half of the summer term.

Video recordings were made of the lessons of seven teachers in 2002 and seven teachers in 2003. The sample of teachers was selected in the following way. For the 2002 cohort, teachers who taught both top and middle band Year 9 classes were identified from the timetable with the aim of getting recordings of each teacher delivering the same lesson to pupils in different bands. This initial group of teachers numbered about 12 and covered a range of subjects. Ideally the range of subjects observed would have included the three core subjects of English, maths and science and a range of other subjects. However, it proved to be impossible to include English in the subject range as no English teacher taught both a top and middle band Year 9 class. Teachers identified in this way were asked if they would be willing to take part in the research and have their lessons videoed. In some subjects more than one teacher matched the first criteria which enabled some balancing of the sample of teachers by gender, experience and position of responsibility. However, the majority of staff who matched the initial criteria had more than ten years teaching experience. As a result less experienced teachers were under-represented in

the sample. Most teachers who were approached agreed to take part in the research. The two who were unwilling were both experienced teachers. One other less-experienced teacher initially agreed to take part but later withdrew, giving pressure of work as a reason.

Table 5.9 Sample of teachers selected for lesson observations

Cohort	Subject	Gender	Position	Years experience
2002	RE	F	Classroom teacher	10+
	Maths	M	Classroom teacher	10+
	Biology	F	Classroom teacher	4
	Physics	M	Head of department	10+
	History	F	Head of department	10+
	French	F	Classroom teacher	5
	Geography	M	Head of department	10+
2003	Maths	F	Classroom teacher	8
	Geography	M	Classroom teacher	6
	History	F	Head of department	10+
	RE	F	Classroom teacher	10+
	French	M	Classroom teacher	10+
	Physics	M	Classroom teacher	10+
	Biology	F	Classroom teacher	5

For the 2003 cohort teachers were identified who taught at least two Year 9 classes and again the sample was balanced where possible by gender, experience and position of responsibility. In this cohort all subjects were taught in mixed ability classes except for science, maths and French where pupils were set by ability. The sample includes 4 set subjects and 3 mixed ability subjects. Four teachers took part in both years. The teachers chose which of their lessons with each class was to be videoed.

5.7.2 How was the equipment set up?

The procedure followed was to set up the video camera at the front of the class, for example, beside the teacher's desk, with the camera pointing towards the class. The camera was angled down slightly so that the largest possible number of pupils was visible when they were seated. Because of the limited angle of view of the camera only about half of each class could be seen. This was a limitation of the digital video camera being used.

The video was set up before the start of the lesson and intended to run until the class had left the room at the end of the lesson. The teachers all knew how to operate the camera and so had the option of stopping the recording at any time if they wished, although this was not suggested to them as an option. Some of the teachers were required, because of the timing of their lessons, to start the recording.

The view from the front of the room enables the observer to focus on the behaviours of individual pupils or groups of pupils as well as getting a general impression of how the class responded. The actions of the teacher take place largely off-camera, although the sound quality was sufficiently good that transcripts could be made. The pupils who were in view for detailed observation were essentially a random selection since the seating arrangement in each room was not known in advance and the position of the camera was determined by practicalities such as position of electrical sockets and direction of light.

One disadvantage of leaving a camera set up for a remote recording was that it was impossible to make adjustments either for technical reasons or because the view of the class turned out to be limited in some way. For example, in one

case, where the teacher allowed pupils to choose their own seats and there were spare seats in the room, it was possible for pupils to choose to sit away from the direct field of view of the camera. It was also possible that the sample of pupils who happened to be in view was not typical of the class either because of deliberate actions of the teacher, for example, in seating disruptive pupils at the front of the room or simply because of the accidental distribution of pupils.

5.7.3 What were teachers told about the research?

Teachers were aware that the research related to the banding system and that, for the 2002 cohort, pairs of recordings were being made so that differences between the classes could be observed and for the 2003 cohort, recordings were being made to compare with 2002. They were aware that the recordings would be analysed in terms of any differences there might be in the responses of each class to the teacher, relationships within the classes, behaviour, use of language and any other issues that might arise. It was made clear that the recordings would be confidential. Despite assurances of confidentiality, some teachers specifically asked whether the headteacher would see the videos and only agreed to the recordings after guarantees that he would not. Teachers were told that they could have their own copy of the recordings if they wished: only two teachers requested copies.

5.7.4 What were pupils told about the research?

The issue of consent for videoing pupils was discussed with the headteacher of the school who took the view that the general consent form which was completed by parents regarding the use of photographs and video within school was sufficient to allow the videoing to go ahead. It would otherwise have been

a considerable administrative task to collect positive consent from the large number of pupils involved and this might have jeopardized the whole process if incomplete returns or lack of consent restricted the classes which could be observed. Alternatives were discussed, such as a letter to parents of that year group regarding the research, giving the option of further discussion about consent issues if there were any concerns, or of an article with similar content in the school newsletter. The latter was considered the most appropriate but still not a requirement for the research to go ahead. Videoing of lessons was quite common place in the school as part of staff development, although for this purpose the video camera was normally placed at the back of the room directed towards the teacher rather than at the front aimed at the pupils. There was concern that if detailed information was provided and specific consent sought for my lesson observations that pupils and parents might expect the same for all future use of video recording in lessons and that this might prove problematic.

It was explained to teachers that they should tell the pupils that the research was part of a project looking at the approaches to learning of Year 9. Teachers were asked to avoid making any direct reference to banding and comparisons between classes. They were also asked to explain that the consent for videoing was covered by general permission within the school and to reassure pupils about the confidential nature of the research process. Teachers did not always conform to these requirements and their responses to the videoing process are explored further in chapter 10.

5.7.5 Follow-up teacher interviews

Teacher interviews were carried out following the video recording of their lessons and aimed to discuss specific issues relating to the lessons which had been recorded as well as more general issues such as teacher attitudes towards different grouping systems.

For the 2002 cohort, the majority of these follow-up interviews took place within a week of the second videoing session. For the 2003 cohort the time interval between recording and interview was longer, however, the video recordings were available to remind the teachers of the specific lessons and the longer time gap was not considered likely to have affected general attitudes. For each cohort all of the teachers who were videoed were interviewed but one. In both cases, these were teachers who were not available for interview due to health problems.

These interviews took place during non-contact periods in as private and relaxed a situation as possible and each interview lasted approximately one hour. As with the pupil interviews an "interview guide" approach was used to enable the conversation to flow whilst still ensuring coverage of key issues. In lessons teachers have their public persona on display and are in a situation where they are 'performing' to an audience and in this situation the teachers who were observed were happy to have their lessons videoed. However, in an interview situation it is the teachers' personal thoughts and feelings that are of interest. It was considered that while teachers might not object to the presence of a tape recorder, recording the interviews might introduce a degree of formality that might limit the scope of discussions. Therefore the interviews were not recorded. Instead notes were made during the interview and copies

of these were given to the teachers for checking to provide a degree of respondent validation and also to enable them to add further comments about the issues discussed. No adverse comments were received in response to the notes from the interviews which may reflect the accuracy of the account but it may also be that pressure of other responsibilities meant that discussing amendments to the notes was not high on their priority list. The only real way of checking this would be to introduce a few deliberate errors into the account or make some serious omissions. However, this might affect the future relationship of the researcher and respondents, if the respondents do not feel able to trust the researcher to accurately record and reflect their views.

The interviews began by asking the teachers how they and their classes had reacted to the process of being videoed, for example, whether it had affected their planning for the lesson or their own or their pupils' behaviour during the recording.

Teachers were then asked how they would describe their classes, as if to another teacher who was going to be taking over their class for a while, including the good and bad points and who were the "characters" in the class.

They were then presented with a three scales; the purpose of these was to prompt discussion rather than to collect quantitative data.

HIGHLY MOTIVATED	COMPLIANT AND/OR CO-OPERATIVE	PASSIVE RESISTANCE	BATTLE ZONE
LEARNING IS A SHARED ENTERPRISE	GET ON WITH WHAT HAS TO BE DONE	GO SLOW AND USE WORK AVOIDANCE STRATEGIES	YOU MAKE ME WORK! YOU MAKE ME BEHAVE!

The first scale asked where on the scale teachers would place pupils in their top band class and in their middle band class. In some cases, where teachers felt that their particular class was not typical of the band, they also volunteered their opinions of the place of typical classes on this scale.

Teachers were also presented with scales for rating the proportion of teacher effort and pupil effort that contributed to pupils' achievement and the proportion of teacher and pupil responsibility for behaviour.

Responsibility for pupils' achievement

100%   ←--→   100%

teacher effort   pupil effort

Responsibility for pupils' behaviour

100%   ←--→   100%

teacher   pupil

responsibility   responsibility
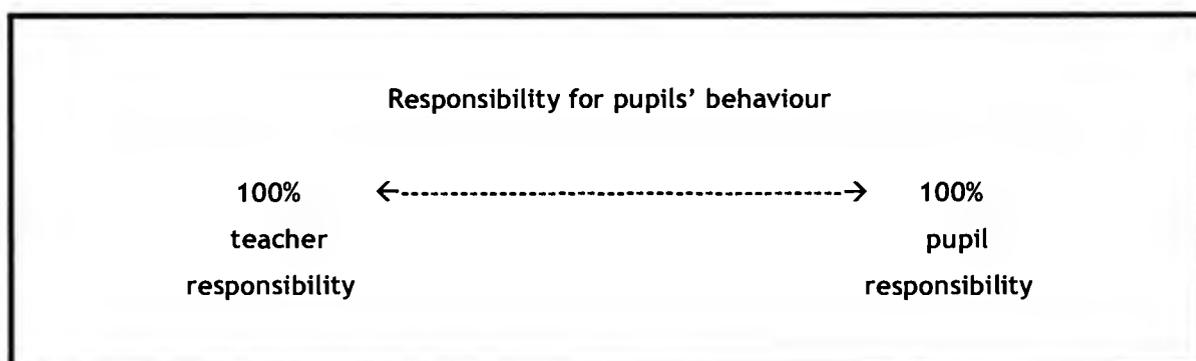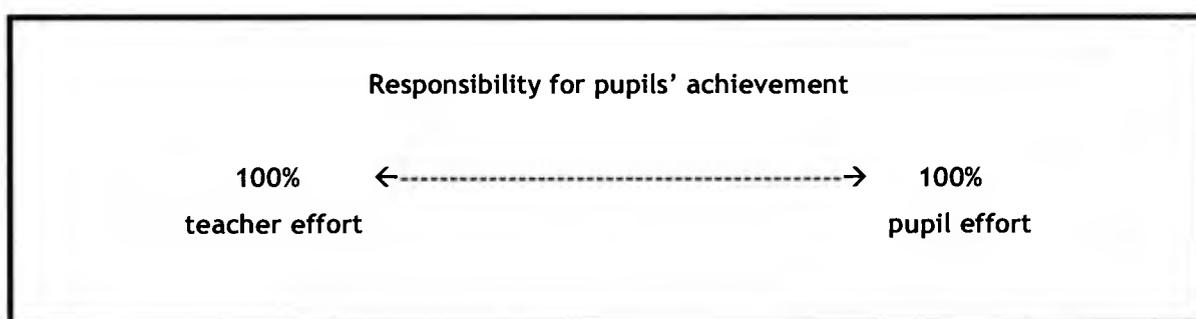
Although it was difficult to avoid the issue of banding, questions up to this point were asking for straightforward descriptions of the classes regarding their attitude, behaviour and the kind of work they could be expected to do. Specific questions about banding and mixed ability systems were deliberately left to the end of the interview in an attempt to reduce bias in teacher's

responses. For example, a teacher might consciously or unconsciously have emphasised the negative points of the banded classes if they were against it or the positive points if they are for it.

Another question that was left until near the end of the interview regarded how the teacher felt whilst teaching the class and whether they looked forward to their lessons. These are very personal questions, particularly if teachers do not feel that they are coping well.

5.8 Analysis of data

There were two main purposes served by the analysis of the data collected for this study. One was to describe the characteristics of the banded and mixed ability cohorts; the other was to compare and contrast these characteristics. The social identity hypothesis which is proposed as an explanation of the impacts of ability grouping systems could then be considered in the light of this evidence.

5.8.1 Quantitative data

SPSS version 13 was used for the organisation and analysis of quantitative data from school and research sources. Many of the questions concerned comparisons between bands or between cohorts, for example, comparing progression from KS2 to KS3 in the banded and mixed ability cohorts. Hence, considerable use has been made of independent t-tests. Robson (p440, 2004) discusses issues concerning the choice of test and the efficiency and robustness of t-tests when applied to data sets which violate the assumptions on which these tests are based, for example, where data are not normally distributed. Where there were doubts about whether data satisfied parametric assumptions,

for example, where the sample size was small, additional non-parametric tests were carried out which compared independent samples (Mann-Whitney tests). For the sake of clarity the results of independent t-tests have been reported rather than the alternative tests, provided that no differences were found in the significance levels or effect sizes. The outcomes of non-parametric tests have been included as appendices.

Where appropriate, effect size had been calculated and reported, using the convention: r = 0.10 (small effect: explains 1% of variance), r = 0.30(medium effect: explains 9% of variance), and r = 0.50 (large effect: explains 25% of variance). This enables assessments to be made of the importance of reported effects (Field, 2005).

5.8.2 Qualitative data

The approach to analysing qualitative data was similar whether the data derived from questionnaires, interviews or observations. This was to review and consider the data, allowing for categories to emerge, and then to build hypotheses, revise and refine categories and to revisit data according to the refined categories. As this process continued, the categories for grouping data became more abstract and more influenced by theory. For example, initial categories for coding pupils' responses to questionnaire items were in terms of descriptions of concrete differences in experiences such as speed or level of work. However, as the theory relating to social identity began to form, pupil responses were coded in deeper and more abstract terms such as the language used to describe in and out groups, the feelings of pupils about their situations or their beliefs about intelligence.

Robson describes a number of approaches to analysing qualitative data. The approach adopted in this study is most influenced by ethnographic methods and progressive focussing and, since its aim is to develop theory, could be described as being *"in the general style of grounded theory approach"* (Robson, 2002).

5.8.2.1 Questionnaires, pupil and teacher interviews

NVivo version 7 was used for coding and analysing pupil responses to questionnaires and transcripts of interviews. This was a useful tool for dealing with the large quantity of data produced by more than 600 pupil questionnaires. It enabled responses to be grouped and categorised and facilitated the analysis of the language used in pupils' descriptions of themselves and others.

As with the quantitative data, much of the qualitative data was used to make comparisons between groups. Inevitably there is an element of judgement involved with categorising qualitative responses and this could lead to a degree of bias. This might arise from *"expectancy effects"* (Robson, 2004) where certain outcomes might be support particular views of different bands. In order to minimise the effect of bias, comments were categorised first by the dependent variable, for example, whether the comment mentioned speed of work, and then by the independent variable, for example, the ability group of the pupil. This reduced the possibility that interpretations of comments were being influenced by prior knowledge of the independent variable.

Some codings were more open to interpretation than others; for example, whether a pupil comment supported entity or malleable theories of intelligence is harder to judge than whether the comment refers to speed of work. Codings of these categories were repeated to avoid what Robson (2004) describes as

"Observer drift" where it becomes easier to identify examples of particular categories as the criteria become more familiar. For these more subtle categories, once criteria for inclusion had been established, the codings were also undertaken independently by the researcher and by a colleague.

5.8.2.2 Video Observations

At the outset it was expected that a time-based coding frame would be used in the analysis of lesson observation videos. However, at an early stage concerns arose both with the purpose this would serve in contributing to the aims of the research and with the effectiveness of the procedures.

Time-based coding could have contributed to descriptions of the characteristics of top band, middle band and mixed ability classrooms and provided information about the frequency of particular behaviours. This type of data is referred to by Robson (2004) as quasi-quantitative data and could subsequently have been analysed using statistical methods. There are advantages of this approach in that established instruments for classroom observation, such as the Flanders (1970) interaction analysis system, could have been used. However, attempts at collecting data in this form raised a number of issues in particular relating to the low frequency of some behaviours that might have been expected to be pertinent. For example, it was initially thought that there might be differences in the amount of praise given to pupils. However, praise was used so rarely in any classroom that it is not likely that there would ever have been sufficient data to demonstrate significant differences. Overall, this approach failed to capture the subtlety of the classroom interactions.

The approach to analysing these data shifted as it became clear that certain types of activity within the lesson provided more depth of data than others.

So, for example, the beginnings of lessons provide rich data concerning the interactions between teachers and pupils and about the amount of effort required for teachers to assert their authority; whereas, a class engaged in carrying out an individual timed assessments provided very little data about the classroom interactions.

Hence, the analysis of these observations began to focus on sections of lessons where particular types of interactions were taking place, for example, where teachers were describing tasks and giving instructions or leading a question and answer session. Within these sections of lessons, some coding of data and transcription was undertaken and fOCUS video analysis software was used for this. For example, codings were used to collect data about the use of terms of address and body language such as direction of gaze. The interactions of pupils and teachers with the video process were also used a sources of data.

5.9 Summary

Chapter Five has set out details of the data collection methods used in this study and discussed some of the issues that relate to these methods. The data fall into two categories: school-based data which is a collation of performance and pastoral data held in school records and research data which have been collected for the purpose of this study.

Complete sets of school-based data are available for a high percentage of pupils in each cohort. These include external assessments (KS2, CATS, KS3 and GCSE), internal assessments (Yr 7 and Yr 8 end of year marks or levels), behaviour scores, records of rewards, sanctions and attendance, and notes from primary school. Some school-based data, for example, KS2 data, are

sufficiently reliable for comparisons to be made between and within cohorts of pupils. However, some data are less reliable, for example, records of rewards, or have been collected in different formats, for example, internal assessments, and this limits their use to comparisons within a cohort.

The research data have been collected using pupil and teacher questionnaires and interviews, and videoed lesson observations. Questionnaires were administered to entire cohorts of pupils with the Year 6 and 7 questionnaires containing many common elements. Lesson observation procedures, carried out with a sample of classes, were the same for both cohorts. It is therefore possible to use these data to make comparisons both within and between cohorts.

Pupil interviews were carried out only with the 2001 banded cohort and aimed to explore pupils' experiences of the banding system.

Chapter 6   The natural experiment

6.1 Introduction

When pupils begin secondary school they become part of a new social system and members of different levels of social groups. In this study, pupils all became members of the school and members of Year 7 and they would all be allocated to, and become members of, one of ten tutor groups. Up until 2002, while the banding system was in operation, pupils would also have been allocated to a top, middle or lower ability teaching group. From 2003 onwards, the mixed ability tutor group was also the teaching group.

It was this change from a banded system to a mixed ability system that provided the opportunity to make comparisons both within and between cohorts in terms of the outcomes for pupils of different abilities and established the natural experiment. However, in order to demonstrate that any differences in outcomes could be attributed to the influence of the ability grouping system, it was necessary to consider the possible effects of other factors relating to the school context and the characteristics of the pupils.

During the course of this study there were no major changes within the school that might have affected school ethos, curriculum, staff allocation, facilities or opportunities. So, except for the change in ability grouping system, pupils would have had very similar educational experiences. There were also no major changes in admissions procedures that might have affected the social composition of the intake.

Data were available for a number of characteristics of pupils at the start of Year 7 and these will be used in this chapter to consider the comparability of

the populations of pupils in each cohort. This chapter will also set out the details of the banding and mixed ability systems and consider the validity of the criteria used to determine band placement.

6.2 The experimental condition

The change in the method of grouping pupils which equates to the 'treatment' received by each cohort is shown in Table 6.1 below. The 2001 cohort was the last cohort to go through the school without significant changes to the grouping arrangements that had existed in the school for a number of years. The 2003 cohort was the first mixed ability cohort. The 2002 cohort was to some extent transitional in that the lower band group was absorbed into the middle band in Year 8 and a whole class full of middle band pupils was promoted to top band at the start of Year 9. The changes to the 2002 cohort were influenced by the school level discussions about the negative impacts of ability grouping and were seen as a possible way of improving outcomes for this year group.

The changes to the established approach to banding in the 2002 cohort impacted on the design of this research for a number of reasons. The initial change to the arrangements for the 2002 cohort, which saw the bottom band class being absorbed into the middle band, directly affected only a small proportion of pupils (<5%) and allowances could have been made to take account of this, for example, by excluding the lower band from analyses. However, the subsequent promotion of a whole class made decisions about categorising pupils as top or middle band problematic and would have presented particular difficulties when comparing outcomes for different ability groups within and between cohorts.

Table 6.1 'Treatment' received by 2001, 2002 & 2003 cohorts

	Teaching Classes	Method of determining class placement at start of Year 7	Additional notes
2001 Banded cohort	**Top Band** 4 classes of 30 pupils	Top ranked 120 pupils by KS2 SATS average fractional level (approx 4.6 and above)	• Year 7 pupils taught in banded classes for all subjects. • Years 8 & 9 some setting within bands for core subjects.
	Middle Band 4 classes of up to 25 pupils	All pupils ranked from 121st downwards except for those allocated to Lower band group	
	Lower Band 1 class of 12 pupils	Lowest ability but including some special needs e.g. behavioural problems with higher ability	
2002 Banded cohort	**Top Band** 5 classes of 30 pupils	Top ranked 150 pupils by KS2 SATS average fractional level (approx 4.55 and above)	• Year 7 pupils taught in banded classes for all subjects. • Years 8 & 9 some setting within bands for core subjects. • **Year 8 changes: Lower band combined with middle band leaving only two bands: middle and top** • **Year 9 changes: One additional top band class created giving 6 top band classes of 30 pupils; and two 'middle band' classes.**
	Middle Band 3 classes of up to 25 pupils	All pupils ranked from 151st downwards except for those allocated to Lower band group	
	Lower Band 1 class of 12 pupils	Lowest ability but including some special needs e.g. behavioural problems with higher ability	
2003 Mixed ability cohort	**Tutor groups** 10 classes of up to 24 pupils	KS2 scores used to achieve a balance of abilities within each class	• Year 7 pupils taught in mixed ability tutor groups for all subjects. • Years 8 & 9 limited setting in core subjects. • In class support for pupils with special needs.

Note: in all cohorts information from primary schools was used to try to achieve a good social mix in each class

To avoid these complications, where possible the 2001 cohort was used as an example of a typical banded cohort and their data were compared with the 2003 mixed ability cohort. The only exception to this was with the Year 9 lesson observations where the 2002 cohort was used for comparison.

6.3 Comparing cohorts at the start of KS3

The 2001 and 2002 banded and 2003 mixed ability cohorts were very similar with respect to size, gender, social background, effort, behaviour, ability and attainment.

Table 6.2 Number of pupils by gender (2001, 2002 and 2003 cohorts)

Gender of Pupils	Number of pupils (% of cohort)		
	2001 Banded cohort	2002 Banded cohort	2003 Mixed ability cohort
Total	223 (100%)	244 (100%)	229 (100%)
Male	96 (43%)	123 (50%)	117 (51%)
Female	127 (57%)	121 (50%)	112 (49%)

The total number of pupils in each cohort was very similar, although the 2001 banded cohort had an unusually high proportion of girls.

Table 6.3 Number of pupils by primary feeder school (2001, 2002 & 2003 cohorts)

Primary feeder school	Number of pupils (% of cohort)		
	2001 Banded cohort	2002 Banded cohort	2003 Mixed ability cohort
1	18 (8%)	21 (9%)	23 (10%)
2	59 (26%)	55 (23%)	51 (22%)
3	18 (8%)	23 (9%)	12 (5%)
4	23 (10%)	11 (5%)	16 (7%)
5	18 (8%)	29 (12%)	25 (11%)
6	10 (4%)	17 (7%)	16 (7%)
7	28 (13%)	26 (11%)	22 (10%)
8	8 (3%)	18 (7%)	14 (6%)
9	25 (11%)	29 (12%)	31 (14%)
Others	16 (7%)	15 (6%)	19 (9%)

The secondary school draws its pupils from more than ten primary schools and has a wide catchment area. The figures above show that the population of each cohort is drawn from the same feeder primary schools in similar proportions each year. The catchment area of the secondary school is fairly homogeneous in terms of social indicators, for example, health, education, employment, social group, quality of housing, but even if this were not the case the consistency of the enrolment pattern would result in comparable proportions of pupils from different areas being recruited into each cohort. It can therefore be assumed that the social backgrounds of the pupils in each cohort are similar.

At the end of Year 6 pupils took their KS2 SATS and data were collected from primary teachers relating to behaviour and effort. In the first term of Year 7 all pupils took CATS. These data are summarised in Table 6.4 below.

Table 6.4 Baseline data (2001, 2002 and 2003 cohorts)

		2001 Banded cohort			2002 Banded cohort			2003 Mixed ability cohort		
		Mean	Standard deviation	N	Mean	Standard deviation	N	Mean	Standard deviation	N
KS2 Fractional level	Average	4.63	0.52	202	4.58	0.64	237	4.69	0.49	219
	English	4.56	0.57	210	4.46	0.73	237	4.59	0.55	220
	Maths	4.50	0.69	208	4.51	0.78	238	4.60	0.66	224
	Science	4.72	0.58	215	4.74	0.56	238	4.80	0.54	226
Year 6	Behaviour score	1.70	0.99	209	1.58	1.01	236	1.69	0.97	152
	Effort score	1.90	1.06	207	1.74	1.03	237	1.97	1.16	152
CATS scores	Total	100.5	11.6	218	100.6	11.2	239	100.0	10.1	227
	Verbal	97.7	13.3	218	98.3	12.7	238	96.6	11.9	227
	Quantitative	102.6	13.6	216	103.0	12.7	239	103.5	11.4	227
	Non-verbal	100.9	12.5	217	100.6	11.9	239	99.9	12.0	227

Analysis of variance between the three cohorts (see appendix 7) showed no significant differences with respect to any of these measures. This suggests that there were no significant academic or behavioural differences between the cohorts at the start of secondary schooling and that valid comparisons could be made between any of these groups. However, the effects of the transitional arrangements for the 2002 cohort meant that the majority of comparisons were made between the 2001 banded and 2003 mixed ability cohorts.

6.4 Validity of KS2 data as a measure of ability

The KS2 scores used by the school to rank pupils were described by the school as average fractional KS2 levels. These were calculated by the secondary school from data provided by the primary schools and used actual scores on KS2 SATS papers to give a more precise, and hence apparently more accurate, measure of attainment than could be obtained by using point scores or overall levels.

By using KS2 SATS scores as the sole determinant of ability this school, in common with many others, is taking these scores to be a reliable and valid measure of ability. However, it seems to be reasonable to consider that an individual child's attainment at KS2 might be affected by their educational or personal circumstances.

Data were available relating to a number of factors which might influence attainment at KS2 including personal data (gender, age and primary school attended) as well as sensitive information from primary school notes revealing the existence of family, health, social or behavioural problems. There were also likely to be other factors which influenced attainment, for example, the

number of hours of home tutoring, for which no data were available. Educational 'special needs' have not been included as one of the factors as these were likely to have a strong correlation with KS2 levels as a measure of ability. However, any 'special needs' which related to health issues, for example, visual impairment, were included in the family and health issues category.

The effects of these factors on attainment at KS2 are first considered separately and then combined using a linear regression in order to ascertain their overall effect. The major determinant of attainment at KS2 is likely to be 'ability'; this could not be included in the regression model as there was no independent measure of ability available. The aim of this analysis was to determine the significance and combined impact of minor factors. By their nature some of these factors, for example, those relating to social or health issues will only apply to a small proportion of each population and, hence, might not separately have an impact on the population as a whole.

6.4.1 Age

There is a weak correlation between age and KS2 average fractional levels with younger pupils tending to have lower attainment. This is more apparent in the 2001 cohort (Figure 6.1).

Figure 6.1 Graphs to show correlation of KS2 average fractional level with age
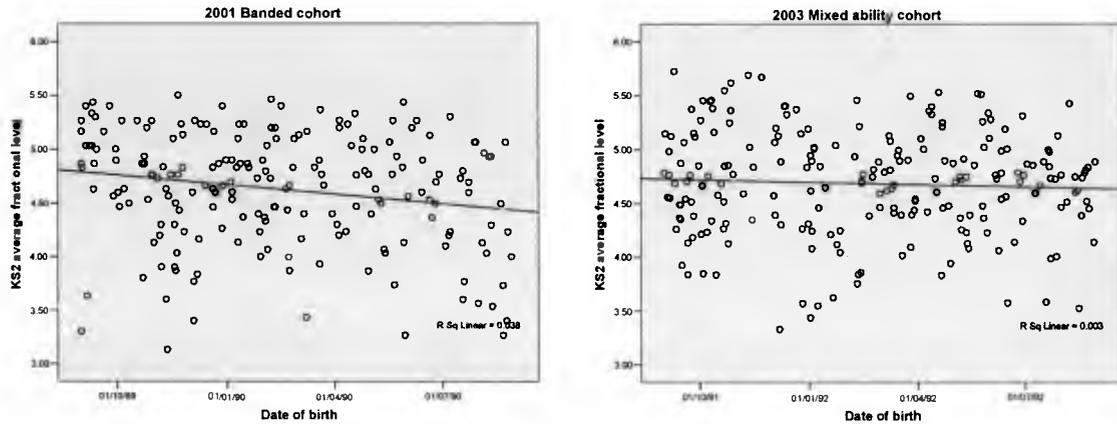
6.4.2 Gender

There are no significant differences between the mean KS2 scores of boys and girls in either the banded or the mixed ability cohort.

Table 6.5 Mean KS2 average fractional levels by gender and cohort

KS2 fractional levels	Female			Male			Comparison of means		
	Number of pupils (%)	Mean	S.D.	Number of pupils (%)	mean	S.D.	t(DF)	p (2-tailed)	Effect size r
2001 banded cohort	117 (58%)	4.64	0.53	85 (42%)	4.63	0.52	$t(200) = 0.22$	NS	.01
2002 Banded cohort	116 (49%)	4.56	0.59	121 (51%)	4.59	0.67	$t(235) = -0.39$	NS	.03
2003 mixed ability cohort	107 (49%)	4.66	0.46	112 (51%)	4.72	0.51	$t(217) = -0.83$	NS	.06

6.4.3 Family and health issues

Pupils are identified as having family or health issues if there is reference in the notes from primary school to family issues, health problems or attendance problems. Attendance problems are assumed to be linked either to family or

150

health problems with this age group. Examples of comments that would be included in this category are:

- Poor ability/ lovely/ Difficulty from mum/Parents indulge
- Gorgeous/v quiet/missed lots of school/attendance
- Mum ill - be watchful
- Attendance record/Hay fever
- Bright. Watch attendance - responsible at home
- Gifted artistically/Needs a good feed

(See appendix 8 for more details of criteria for identifying pupils with health or family issues.)

Comparison of the means for pupils with and without identified family and health issues shows that pupils without issues had significantly higher mean KS2 average fractional levels in both cohorts.

Table 6.6 Mean KS2 average fractional levels for family and health issues

KS2 fractional levels	No identified family or health issues			Some identified family or health issues			Comparison of means		
	Number of pupils (%)	mean	S.D.	Number of pupils (%)	mean	S.D.	t(DF)	p (2-tailed)	Effect size r
2001 banded cohort	161 (80%)	4.62	0.59	39 (20%)	4.29	0.51	$t(198) = 3.18$	.002	.22
2003 mixed ability cohort	151 (90%)	4.63	0.51	17 (10%)	4.12	0.62	$t(166) = 2.82$	.000	.21

The graph below (Figure 6.2) shows this information in relation to the borderline score between top and middle band which is a KS2 average fractional level of 4.6. In both cohorts the mean for pupils with identified family and health issues lies well below this borderline.

Figure 6.2 Graph to show Mean KS2 average fractional levels for pupils with or without identified family or health issues
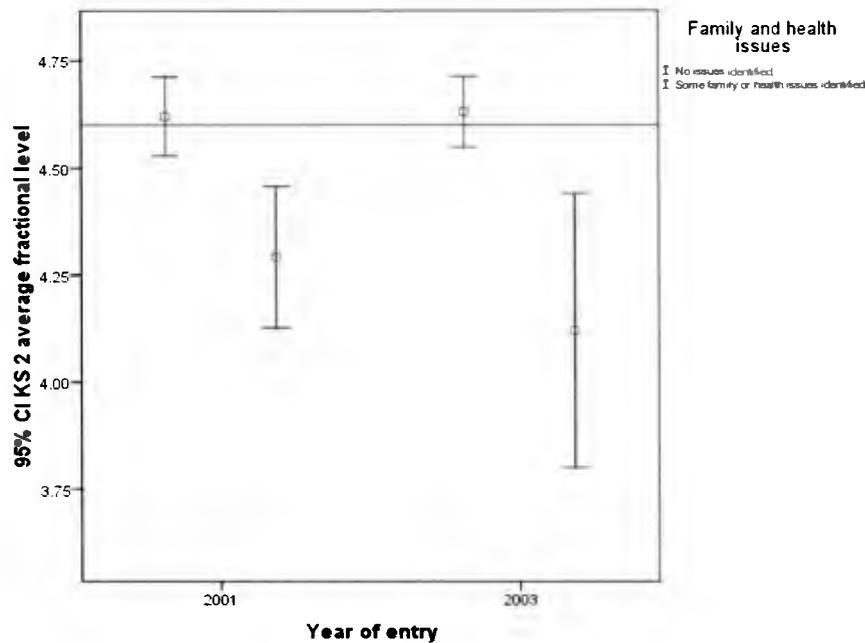
6.4.4 Social and emotional issues

Pupils were identified as having social or emotional issues if their primary school notes make reference to issues such as confidence, friendship and their ability to fit in with others. The number of pupils with identified issues was 27 (14%) in the 2001 cohort and 35 (21%) in the 2003 cohort. Examples of comments in this category include:

- Lovely when things are good, but tears, victim
- Strange/fussy/doesn't mix to well
- Really shy/very immature/young/extremely nervous
- Soft. Sensitive. Cries easily.
- Not sociable, can be a victim, low social skills.
- Personal problems - tries to please, doesn't like to be different
- Lacks concentration and can be rude. Can be over friendly with adults
- Very stubborn. Mixes with younger pupils.

These social and emotional issues were identified on the basis of behaviours that had been observed in schools and classrooms. It is perhaps surprising then

that these issues seem to have less of an impact on KS2 scores than health and family issues. Pupils with identified social and emotional issues have lower mean average fractional levels in both cohorts but the differences are not significant.

Figure 6.3 Graph to show mean KS2 scores for pupils with or without social or emotional issues
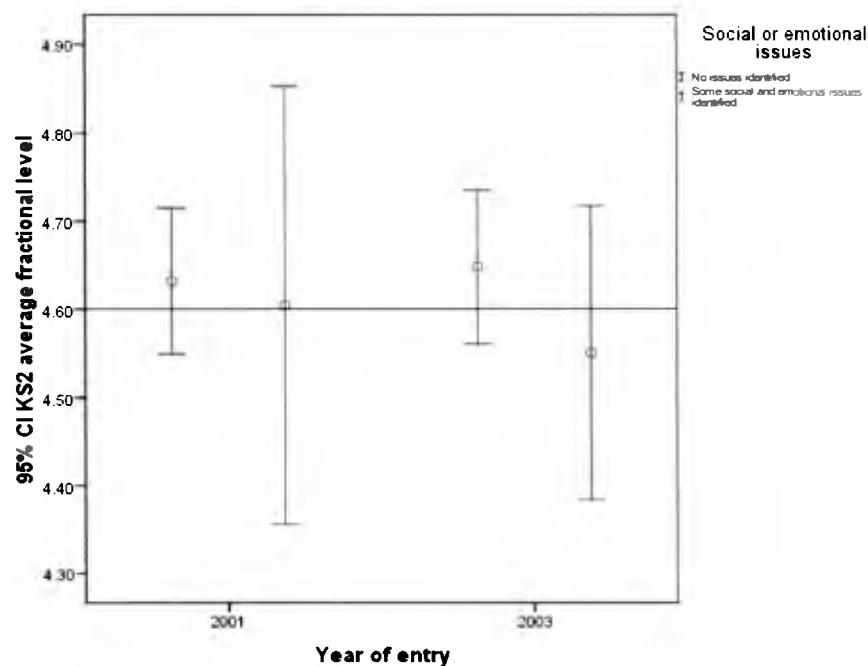
6.4.5 Behavioural issues

As with the social and emotional comments the behavioural comments are based on observations within schools and classrooms. The number of pupils with identified behavioural issues was 15 (7%) in the 2001 cohort and 35 (21%) in the 2003 cohort. Comments that identify pupils as having behavioural issues include:

- OK. Will be on fringes of problems.
- Violent, bad language
- Will not work. Very disruptive behaviour. In Behaviour Unit. Can't work in whole class situation.
- SEN. Poor behaviour.

- Nice nature. Will cause problems. Always looks for trouble. Looks aggressive.

In both cohorts the mean KS2 average fractional levels for pupils identified as having behavioural problems are lower than those without identified problems and the means are below the top/middle band borderline score of 4.6. However, the differences are not significant.

Figure 6.4 Graph to show mean KS2 average fractional levels for pupils with or without identified behavioural issues
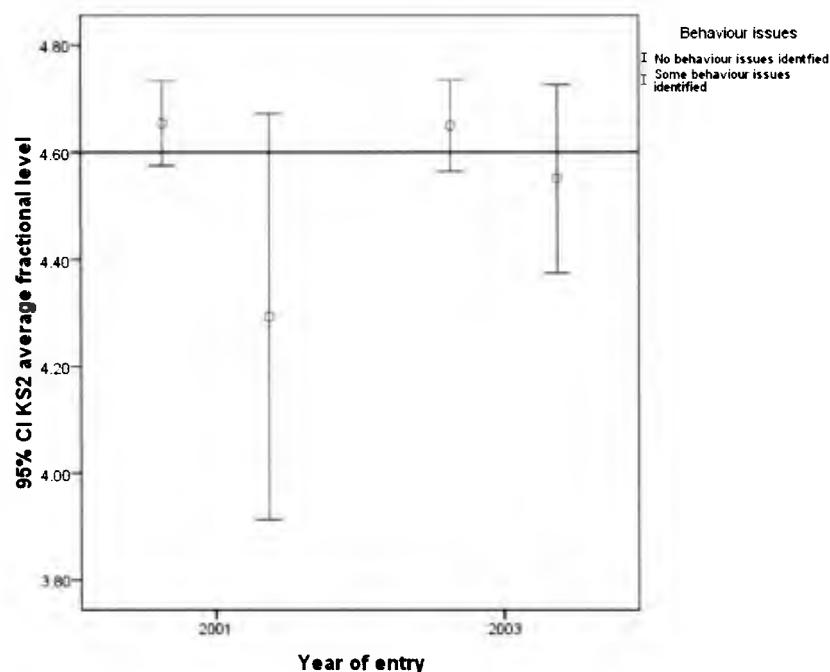
6.4.6 Primary school attended

Some primary schools have low attainment in both years, for example, schools 2 and 4 have means below the top/middle borderline in both years. Some, for example, schools 3 and 8, have high attainment above the top/middle borderline in both years. Others vary, some quite dramatically, from one year to the next, with school 9 having significantly different means in the two years.

Figure 6.5 Graph to show mean KS2 average fractional levels for pupils from different primary feeder schools
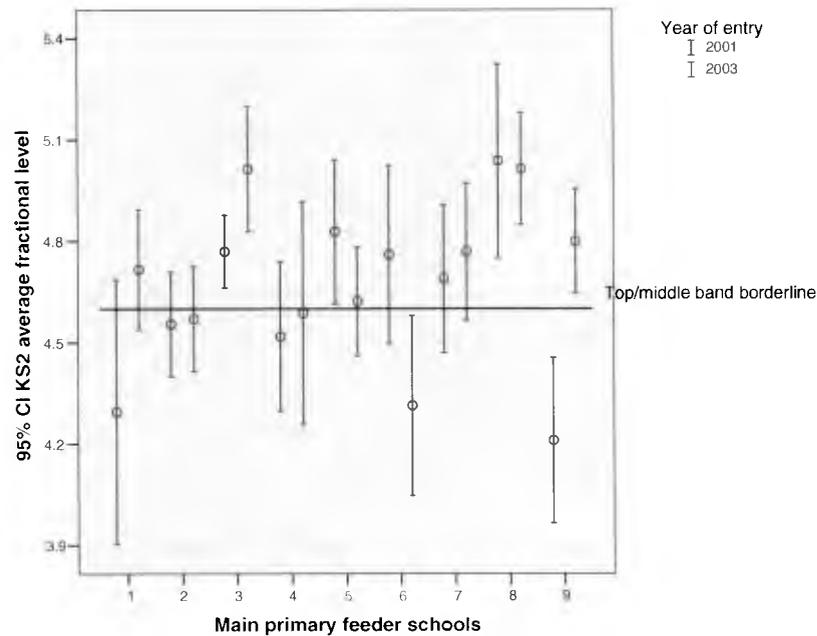
6.4.7 Multiple regression of factors influencing KS2 scores

The factors were entered into the model in three stages. The model begins with the immutable factors of gender and age and then introduces environmental factors of family, health, social, emotional and behavioural issues. Finally the educational factor of primary school is introduced.

- model 1 gender and age

- model 2 behaviour issues, family and health issues, and social issues

- model 3 primary school (In order to include primary school in the model dummy variables were created for each primary school separately.)

Entering these factors in a linear regression model produces the following results.

155

Table 6.7 Multiple regression to assess the contribution of factors affecting attainment at KS2 for the 2001 cohort

	B	SE B	B	T	Significance
Step 1					
Constant	4.81	.08		57.89	.000
Gender	-.02	.08	-.014	-.19	.853
Month of birth	-.03	.01	-.188	-2.56	.011
Step 2					
Constant	5.72	.26		22.23	.000
Gender	.025	.078	.023	.33	.744
Month of birth	-.027	.011	-.17	-2.42	.016
Family and health issues	-.39	.10	-.29	-4.09	.000
Social or emotional issues	-.09	.11	-.05	-.74	.460
Behaviour issues	-.35	.15	-.17	-2.34	.020
Step 3					
Constant	5.80	.28		20.98	.000
Gender	.05	.08	.05	.70	.485
Month of birth	-.02	.01	-.15	-2.20	.029
Family and health issues	-.37	.09	-.27	-3.94	.000
Social or emotional issues	-.17	.11	-.104	-1.47	.139
Behaviour issues	-.29	.15	-.137	-1.87	.063
School 1	-.45	.16	-.24	-2.91	.004
School 2	-.10	.12	-.08	-.79	.428
School 3	.01	.20	.01	.03	.976
School 4	-.14	.15	-.08	-.96	.340
School 5	.02	.15	.01	.16	.877
School 6	-.01	.19	-.01	-.07	.944
School 7	.24	.20	.09	1.16	.250
School 8	-.38	.15	-.23	-2.52	.013

R^2= .036 for step 1 ($p<.037$), R^2= .140 for step 2 ($p<.000$), R^2= .235 for step 3 ($p<.000$)

Table 6.8 Multiple regression to assess the contribution of factors affecting attainment at KS2 for the 2003 cohort

	B	SE B	B	t	Significance
Step 1					
Constant	4.61	.09		53.17	.000
Gender	.06	.08	.06	.75	.452
Month of birth	-.01	.01	-.01	-.13	.899
Step 2					
Constant	5.36	.24		22.72	.000
Gender	.07	.08	.08	.96	.340
Month of birth	.01	.01	.02	.25	.805
Family and health issues	-.40	.13	-.24	-3.00	.003
Social or emotional issues	-.14	.09	-.12	-1.49	.139
Behaviour issues	-.14	.09	-.12	-1.47	.144
Step 3					
Constant	5.21	.22		23.35	.000
Gender	.12	.07	.12	1.67	.098
Month of birth	-.01	.01	-.02	-.19	.848
Family and health issues	-.41	.13	-.24	-3.18	.002
Social or emotional issues	-.12	.09	-.10	-1.32	.190
Behaviour issues	-.09	.09	-.07	-.10	.321
School 1	.10	.12	.07	.85	.396
School 2	.21	.21	.08	1.00	.318
School 3	-.58	.21	-.21	-2.74	.007
School 4	.05	.11	.03	.41	.683
School 5	-.72	.21	-.26	-3.35	.001
School 6	.26	.12	.19	2.28	.024
School 7	.20	.10	.16	1.90	.059

R^2=.004 for step 1 ($p<.743$), R^2= .078for step 2 ($p<.027$), R^2= .253 for step 3 ($p<.000$)

Table 6.9 Overall results of linear regression model of factors influencing KS2 attainment

	2001 Banded cohort	2003 Mixed ability cohort
R squared	0.235	0.253
Adjusted R squared	0.176	0.192

These results suggest that over 20% of the variance in KS2 results for the population of each cohort can be explained by factors other than 'ability'. This calls into question the validity of regarding KS2 data as an accurate measure of ability and certainly means that the degree of accuracy implicit in the calculated fractional levels is misleading. However, this only becomes a matter of concern if placement in a lower band has an adverse effect on a child's progress through the school.

6.5 Permanence of band placement

Once placed in a band that placement is highly likely to be permanent. Table 6.10 below shows the number of pupils in the 2001 cohort who changed band between Years 7, 8 and 9.

Table 6.10 Proportion of boys/girls in each cohort by band

	Band Year 7			Change in band Yr 7 to 8		Band Year 8			Change in band Yr 8 to 9		Band Year 9		
	Low	Mid	Top	Down	Up	Low	Mid	Top	Down	Up	Low	Mid	Top
Number of girls	8	50	68	2	8	8	44	74	2	3	7	45	74
% of girls	6	40	54	1.6	6.3	6	35	59	1.6	2.3	6	36	59
Number of boys	7	39	49	5	4	5	44	46	2	3	5	43	47
% of boys	7	41	52	5.3	4.2	5	46	48	2.1	3.2	5	45	49
Total Number	15	89	117	7	12	13	88	120	4	6	12	88	121
% of total	7	40	53	3.2	5.4	6	40	54	1.8	2.7	5	40	55

These show that the total number of pupils who moved up or down between Years 7 and 8 amounts to less than 9% of the total cohort, and between Years 8

and 9 to less than 6%. There is an imbalance in band movements between boys and girls with more girls being promoted and more boys being demoted. This skews the distribution of boys and girls between bands to the extent that by Year 9 the proportion or girls in the top band is around 10% higher than the boys, while in the middle band the proportion of boys is 10% higher than the girls.

6.6 Summary

The 2001 and 2002 banded and 2003 mixed ability cohorts were similar with respect to characteristics such as size and social background, although there was a slight imbalance in gender with a higher proportion of girls in the 2001 banded cohort. There were no significant differences between the cohorts in terms of behaviour and effort scores, KS2 levels or CATS scores. Overall, these findings supported the hypothesis that the context of the study could be considered as a natural experiment as the cohorts were considered to be sufficiently similar at the start of their secondary schooling for any differences that emerged to be attributed to differences in their experiences in school.

Band placement for the 2001 cohort was determined by ranking pupils in terms of their average fractional KS2 scores. Factors such as age, family and health issues or primary school attended were found to account for around 20% of the variance in KS2 scores of these cohorts; this calls into question the practice of regarding these scores as valid, reliable and accurate measures of ability.

The finding that band placement was highly likely to be permanent is typical of the characteristics of the ability grouped systems described in the literature.

Chapter 7   Establishing social identities

7.1 Introduction

On the first day of the autumn term the new cohort of Year 7 pupils arrived in school and gathered for an assembly after which they were organised into tutor groups. In 2001 the ability grouping system operating in the school meant that on their first morning in the school pupils were told which teaching class they would be in and hence whether they were in upper, middle or lower band. So even before pupils had got to know people in their tutor group they were alerted to the existence of differences between them that were of significance to the school. This chapter looks at how this designation as upper, middle or lower band pupils influenced the development of pupils' social identity in their new school.

7.1.1 Group identity

For the 2001 banded cohort, the teaching class was the dominant social unit where pupils spent the majority of their time, 24 hours of lessons per week, and it was in the context of the teaching class that pupils encountered most of the challenges associated with school transfer such as making new friends, finding their way around, dealing with new work, teachers and rules (Measor & Woods, 1984).

Despite being linked to the pastoral system, the tutor group was limited in its capacity to provide support. It was likely to be a weaker social unit than the teaching class as the total time spent with the tutor group, including registration, assemblies and a PSE (personal and social education) lesson amounted to less than two and a half hours per week. There was no link

between the tutor group and teaching class as within each tutor group there was a mix of pupils from all teaching classes with no more than 3 pupils from each one. It therefore seemed likely that as pupils established their identities in the secondary school it was the teaching class that mattered more than the tutor group.

There were similarities between the experiments set up by Tajfel (1981) relating to group identity and the experiences of these pupils as they began secondary school. In both cases individuals were allocated to groups, without knowing the other people in the group and without having a clear understanding of the basis of group allocation. Tajfel observed behaviours that he interpreted as favouring the 'in-group' and accentuating the differences between the 'in-group' and 'out-group'. This chapter presents evidence that pupils seemed to respond to being banded by establishing group identities and that the drive to accentuate differences between the in-group and out-group led to distinct identities for each ability band.

7.1.2 Sources of data

In this chapter I will be analysing questionnaire and interview data collected from the 2001 cohort at the end of Year 6 and during Year 7. Preliminary analysis of these data revealed categories, for example, the use of 'them and us' language, that prompted the idea that social identity theory might provide a valid basis for interpreting issues relating to ability grouping. Hence the analysis in this chapter uses a framework based on social identity theory. This includes looking for evidence of the development of in-group and out-group identities such as the use of 'them and us' language and for evidence that pupils accentuated differences between their in- and out-group. The data will

also be used to build up a picture of each groups' stereotypical view of itself and its out-group and, hence, an understanding of the characteristics of the social identities of these pupils.

The first set of data was from a questionnaire completed at the end of Year 6 by the whole cohort. These provided an understanding of the aspirations and expectations that pupils had of the school they would be starting in September. The second set of data to be considered was from Year 7 interviews in November 2001. These were critical as they suggested that group identities were already strongly established within the first eight weeks of starting at secondary school. The idea of group identity was developed further using the third set of data from interviews with pupils who changed bands at the mid point of the year. Finally questionnaires completed by the whole cohort in July 2002, towards the end of the academic year, provided an overview of the characteristics of each band's identity.

7.2 July 2001: The end of Year 6

At the end of Year 6, in the summer term prior to transfer, the 2001 cohort of pupils visited the secondary school as part of the induction process. During this visit they completed a questionnaire which included questions about the banding system. Most pupils already had some understanding of the system as it had, in principle, been in existence since the school became a comprehensive in 1974 which meant that some pupils were the second generation of their family to go through the system and shared the experience with parents, uncles and aunts as well as friends and siblings.

One of the questions asked which band they hoped to be in and why. There was a positive, optimistic air about their responses whichever band they hoped

to be in; even the sole pupil who hoped to be in the lower band did so because he was looking forward to being in a smaller class.

7.2.1 Why I hope to be in top band

Pupils gave a range of reasons for hoping to be in the top band. 41 pupils (35% of those who hoped to be in top band) made comments that suggested that a place in top band was a reward earned through hard work or deserved because of their ability or other positive characteristics.

- I have worked very hard and revised most nights for my SATs
- I am in top group at school and I try very hard to make my work good and well presented. I am well behaved, well mannered and a good hard worker
- I worked hard all the way through my SATs so I think I deserve to be in top I got 555

For 14 pupils (12%) it was simply a personal sense of achievement and pride.

- You are in the brainiest band
- The best people are at the top
- I worked hard on my tests and would like the honour of saying "I'm in top band"
- It's the best and it makes you feel great
- I like to feel proud of good things

23 pupils (19%) made comments that indicated that a place in top band would satisfy family expectations.

- My Mam and Dad will be proud. I will get to learn more things
- That is the smartest group and my brother is in that group so he can help me
- All my family who came here such as my brother, two cousins and my uncle have all been in top
- Everyone will know I am clever as well as well behaved

6 pupils (5%) believed it would give them more confidence in their work.

- I want to know that I am capable of good work
- It will give me more confidence in my work

- I want to know I can do things and that means I will work harder

19 pupils (16%) hoped that the work they would get would be more challenging and interesting.

- I like work that is too hard for me
- I want a challenge
- I like my brain to be challenged
- There will probably be more interesting lessons

Finally, 12 pupils (10% who hoped to be in top band) linked it to ambitions beyond school.

- It will help me in life
- I would like to be a vet when I am older and you have to work hard
- My Mam would really like me to be in top band and I want to be a doctor

7.2.2 Why I hope to be in middle band

The reasons for hoping to be in middle band were mainly to do with getting the right standard of work; not too hard, not too easy, but just right. 37 pupils (39% of pupils who hoped to be in middle band) gave responses in this category.

- I am not very brainy but not dozy either
- It is ordinary and middle is just right like bottom is horrible and top is too hard
- It is not hard and not easy it is just right
- I think the work will not be hard or easy
- I don't want to be too brainy and I don't want to be bad at things
- It is not the brainiest class and not the lowest. I could just handle the work

10 pupils (12%) expressed beliefs that middle band pupils would be able to get help to improve and move up to top band.

- At least you can work your way up to top band
- I can glide through the work and hopefully get into top band
- Middle do the same work as bottom and top but middle gets it explained better than top

- I could improve my work to go up

- If I try my hardest hopefully I will get put into a higher class if I need to

16 pupils (17%) voiced concerns about avoiding name calling in either the top or bottom band.

- I don't want to be called smart alick or dumb

- If you are in top you get called swot and if you are in bottom you get called thickit

- If I'm in top I'll get picked on because I don't want to be smart and if I'm in bottom people will say I'm stupid

- If you are in bottom you get called thick and if you are in top you get called swot

There were also social links with families and friends that directed pupils towards middle band from 8 pupils (8%) of those who hoped to be in middle band).

- Nearly all my friends will be in middle band

- Most of my family was in middle band

- So I can be following my brother

Only one pupil wanted to be in the lower band.

- I think it (lower band) is better because you are only in a small group

7.2.3 Perceptions of band identity

These comments suggested that pupils had a quite well-developed understanding of band identity before they began in the school with the top band being seen as an interesting, high-achieving route while the middle band was a safer, less-challenging route but one where you could expect support and encouragement to improve and move up. Both top and middle band were seen as having positive attributes. The lower band was a route most pupils wanted to avoid.

Pupils' expectations of bands fell into two categories. The first category involved expectations of what the school had to offer, for example, interesting

work or support. The second involved expectations of how band placement will affect them as a person, for example, boosting confidence or feeling proud. Once in Year 7 pupils might gradually come to realise that some of the expectations in the first category are not very realistic: top band work might not be as exciting and challenging as pupils hope, and middle and lower band pupils might not get extra help or the opportunity to move up. While in the longer term this may contribute to pupils' social identity and their relationship with the school and learning, it was unlikely to have an immediate impact at the start of Year 7. For example, decisions about movements between bands were not made until half way through the year so it would not be until this time that pupils became aware of how limited the opportunities to move up were. However, in the second category where pupils have very personal expectations attached to their aspirations to be in a particular band there was scope for immediate disappointment on their very first day in the secondary school if they did not get into the band that they hoped for.

Pupils who hoped for a place in middle band but found themselves in top band might lack confidence or it might be a step outside of their 'comfort zone' if their family and friends had always been 'middle-banders'. However, it was a step-up in terms of status and a positive challenge.

For pupils who found themselves in a lower band than expected the situation was rather different. Overall about 75% of pupils were correct in predicting their band. However, in this cohort 22 pupils out of the 84 placed in middle band had hoped to be in top band and 14 out of the 15 pupils in the lower band had hoped to be in a higher band. So, while the majority of pupils would have been happy with the outcome of the banding decisions, a substantial proportion

(26%) of the middle band and the overwhelming majority (93%) of the lower band were likely to have experienced personal disappointment on their very first day of school.

These comments are from that 26% of middle band pupils who had top band aspirations at the end of Year 6; they were made before they knew their band placement.

- I would like to be in top because it would make me feel good inside
- It will make me feel that I've learned a lot
- I will get good results when I leave sixth form
- My sister was in top band
- I get to learn a lot more then I would in middle band

Similarly these Year 6 comments are from the 93% of lower band pupils who had hoped to be in middle band.

- I would not like to people to think I was thick
- If I am in top I get called swot and in bottom I get called dunce

These were pupils' hopes at the end of the summer term in Year 6. If they retained the same expectations at the start of the autumn term the result of being placed in middle or lower band was likely to engender feelings of personal failure with pupils made to feel not "good inside", that they haven't learned enough, that they are not going to get a chance to learn as much as they could in top band, that they may not get a chance to go into sixth form and that their sister was better than them. Or worse, that they were the person who was likely to be called a dunce.

7.3 November 2001: Eight Weeks into Year 7

Interviews were carried out with small groups of pupils who were either just above or just below the middle/top borderline, and hence were as close as possible to having the same attainment in their KS2 SATs. Ten pupils were interviewed in four groups: two top and two middle band groups with one group from each band consisting of pupils who had been placed in the band they had hoped for and the other group consisting of pupils who had not been placed in the band they had expected. The groups were selected in this way in order to explore the effects of being assigned to top or middle band on pupils who were otherwise similar in all measurable ways (see Chapter 5). The groups were not selected to be representative of the cohort as a whole, or even to be representative of the top or middle bands. Hence, it is inappropriate to attempt to quantify their responses in any way.

The responses of pupils in these groups suggested that within the first eight weeks in Year 7 they had developed a 'them and us' mentality and that they already had clear and shared ideas of the identities of each band. In these interviews, the top band pupils were far less forthcoming in their comments than the middle band pupils. This may have been because they were naturally less talkative individuals, but it might also have been because their position in the top band presented less of a challenge to their identities and did not require the same degree of self-explanation.

7.3.1 Understanding the basis of band assignation

Pupils were assigned to bands by ranking them in terms of KS2 scores, taking the top 120 pupils as four top band classes, creating a lower band with a maximum of 15 pupils comprising the lowest ranked pupils and some special

needs cases, and then forming three 'middle band' classes from those in between. To teachers it might have seemed obvious that band placement was dependent on attainment in KS2 SATs. However, this was not made explicit to pupils and so, when they came to look for similarities with their in-group and differences from their out-group, ability was only one of the factors that they considered.

When asked why they thought they were in a particular band some pupils simply said that they didn't know:

Top band

- Don't know

- Well I must be able to do it (cope with top band) but I don't know really

Others knew that it had something to do with SATs results but this didn't seem to provide a complete explanation as some pupils had the same levels but were in different bands. This confusion arose because pupils only knew their whole SATs levels, whereas the school used fractional levels derived from raw scores from the SATs tests to rank pupils.

Top band

- Cos of like the SATs results

- I don't really know because I got 4,4,4 in my SATs and some people in middle band got higher than me so I don't know really

Middle band

- Some people got all 4s and they're in the top band but I got all 4s and I'm in middle

As whole SATs levels did not explain everything pupils developed other explanations for band placement. The proposed explanation which was closest to the actual method used described the notion of the 'high 4'; this suggested

that some pupils believed that grades might exist within whole levels. However, other factors, including behaviour were also introduced.

Middle band

- In top band ... like some people I know got three 4s in the SATs and some people got three 5s but like the people that got three 4s, cos I got three 4s, ... but some people got like high 4s and go to top band ...

- I could have got high scoring 4s but I'm in middle band because of me behaviour

- Some people I know in (top band) have three 4s but they might be higher 4s, like a couple of points off getting a 5. That means they're, like, better than us. They might be one mark off getting a 5, they can do that work, they might have just made a silly mistake somewhere or they might not have put the answer in the answer box

This last comment took the explanation one stage further and implied that this middle band girl believed that top band pupils, even though they might have the same scores, were superior, "better than us", and that the level 4 scores were not a true reflection of their abilities. However, she seemed to accept that the level 4 scores were a true measure of her own ability. In fact her average fractional SATs level was 4.60; she was ranked 122 in the year group and had missed a top band place by the narrowest of margins.

In the process of looking for similarities with their in-group and differences from their out-group, the fact that known SATs levels do not adequately explain the situation seemed to lead pupils to begin to define the characteristics of their group in terms other than a straightforward ranking in terms of ability.

7.3.2 'Them and us'

'Them and us' language was used by both top and middle band pupils suggesting that both had an understanding of their own band identity, 'us', and saw the other band, 'them', as a separate and distinct group.

Middle band

- <u>They</u> do the same work but at a faster rate than <u>us</u>

- <u>We</u> do the same work only <u>they</u> might get the higher marks cos <u>they</u> are cleverer or <u>they</u> might be going at a faster rate

- <u>They</u> take it in more; it takes <u>us</u> a bit more time to take it in.

Top band

- I think <u>they</u> do roughly the same like but a bit slower like so <u>they</u> understand

- <u>They</u> wouldn't understand it (the work) as much as <u>we</u> do and <u>they</u> would get stuck all the time

This language pervaded pupils' responses and was the scaffold to which pupils' attached their comments about the characteristics of each band, for example, in relation to speed and level of work or behaviour. The use of 'them and us' was apparent in this first set of interviews eight weeks after the start of Year 7; this suggested that the social identity of pupils as members of an identifiable in-group and distinct from other out-groups was established within this time.

7.3.3 Speed and level of work

The following comments were made during the November 2001 interviews:

Middle Band

- I don't think it means they're better than us they just do the same work faster

- They work exactly the same as us

- They might have learnt a few months before we've started

- (I have been)...best friends with a girl for ages and she's in top and we talk to her about work and have the same RE teacher - she has RE the same day as me but a couple

of lessons before - we do the same work only they might get the higher marks cos they are cleverer or they might be going at a faster rate

Top band

- I think they do the same work but take it a little bit slower for the people that aren't as quick as us so that they understand properly
- Top are a bit ahead - get the same work

These comments have two conflicting components. Firstly, pupils asserted that both bands do the same work. Secondly, they expressed a belief that top and middle band pupils work at different speeds, with the middle band working more slowly than the top band. In order to understand how these beliefs fitted in the process of establishing identity we need to consider the extent to which these components were accurate descriptions of the reality of the situation or whether they were inventions to support the accentuation of differences.

Consider the following:

- Pupils in Year 7 followed courses which were defined by the National Curriculum and measured by standard assessments which were set by the school for the whole year group - so teachers did not have the option of allowing a class to work more slowly as the same content must, as far as possible, be covered in the same amount of time.

- Some comments indicated that pupils were aware of the work that the other band was doing and knew that, for example, they used the same course books and materials in most subjects.

- Interviews at the end of Year 7 with pupils who had moved bands, and hence had experience of both bands elicited comments that the work in top and middle band was the same.

- The comments above were made 8 weeks after the start of Year 7 when it was highly unlikely that there would be any noticeable difference between the rate of progress in top and middle band classes.

This suggested that pupils were accurate in their assertion that both bands did the same work but that the comments about differences in rate of work were not supported by evidence; indeed they might even contradict pupil's experiences. Hence, the purported differences in rate of work could be interpreted as part of the process of characterising and accentuating differences between the groups rather than being an accurate description of the situation.

Pupils also expressed beliefs about the relative difficulty of work which similarly conflicted with their assertions that they did the same work. The idea that top band work was harder than middle band work might also be viewed as part of the process of generating separate group identities.

- (Do you think the top band do different work to you?) Totally - I don't think that much but I think it's different compared to like the middle band

7.3.4 Behaviour and learning

The following comments, again from the November 2001 interviews, gave some middle band pupils' views on how behaviour and learning compared in top and middle bands. However, these middle band pupils had no experience of a top band class and couldn't possibly have known how top band pupils actually behaved and learned. Hence, these comments can be interpreted as part of the characterisation of the in- and out-group and the accentuation of differences.

Middle band

- We talk to the people next to us and they just get on with their work

- We're distracted more easily than they are

- We are easy to distract and they're really brainy... teacher just goes shhh...

- They can take things in quicker and they write quicker and get things done and move on to something else. When we've just started something they could be like two things ahead of us so they've got the work that we are doing and two other things. They've took it in and learnt that. It stays in their heads. We could just be on the first one and turning round and carrying on...

- I think its best that we've got the bands because say if you're in middle band and you'd gone in with top you wouldn't be able to cope and if you got moved to bottom band the class would be too easy for you

- I think it (banding) is fair because if you had one teacher for all your subjects and you were still with your old class like in primary school and the teacher had to stop every minute and be explaining things over again for people who weren't as confident, or didn't hear things or weren't concentrating as much. They (middle band) would drag other people back because they (top band) wouldn't get the work done that they should - like they can do better work than us so they should be in a different class with people who can work at the same rate

These comments suggested that middle band pupils saw themselves as talkative, easy to distract, not listening, not concentrating, unable to cope with top band work, not confident, and likely to be "turning round and carrying on". On the other hand they described top band pupils as "really brainy", capable of better work, quick to take in information, learn it and retain it and so well-behaved that the teacher only needs to go "shhh".

The last comment suggested that this middle band pupil would see her presence in a class with top band pupils as damaging to the top band pupils' chance to make progress as middle band pupils, like herself, would "drag" them back.

The top band comment below suggested that this pupil saw middle band pupils as unable to work properly or to understand and likely to get stuck if they attempted 'top band' work. Again, this was speculation as this top band pupil would have had no experience of middle band classes.

Top band

- I think bands are actually right because there could be somebody who doesn't really do the work properly, well not like properly but they don't understand it and they could be put with top band people and they wouldn't understand it as much as we do and they would get stuck all the time, so the bottom band would be better for them.

7.3.5 Moving bands

As part of the interviews in November 2001, pupils were asked how they would feel if they had to move bands. Their responses revealed a strong personal dimension to band identity and many express powerful emotions: pride, shame and anger (with themselves). Moving up a band was something that would make you happy and proud, whereas moving down would make you upset, sad, ashamed, give you a sense of failure and get you laughed at.

How would you feel if you got moved up?

Middle band

- I'd feel proud. I got three 4s in SATs and I worked my way up from there and so I'd be like at the same rate as top - so I'd just like feel more proud because I'd went from middle to top and that would be quite good

- If we got moved up we would be able to (cope with the work) cos over the year we would have improved ourselves and that's why we would probably be moved up so I think we would be able to do the work

- Proud

How would you feel if you got moved down?

Middle band

- If I got moved down I would think like its kind of my fault... if I'd been like distracting other people and talking... but if I hadn't been ... I'd be kind of ...still upset , I'd been working me best and me best wasn't good enough so I'd get moved further down and I'd start getting more distracted

- I'm not bothered if someone takes the mick out of me cos I'm not as clever as them because I like try me best and I can't do better than me best so I'll like try and if I get moved down I get moved down but if I get moved up I'll like be happy...

- upset, angry with myself

Top band

- I would be upset because like I was in the top band, and I think I must be like really falling behind to go right back into middle band

- I would feel ashamed because everybody would start laughing at you

- Probably upset and sad

It seemed that within the first eight weeks of term pupils had established an understanding of their own band identity and that of the other band: 'them and us'. The top band identity had positive attributes: brainy, well-behaved, quick to work and learn. The middle band seemed to only have negative attributes: slow, easily distracted, poorly behaved.

7.4 July 2001: Pupils who Changed Bands

Half way through the year, at the February half term, some pupils were moved from one band to the other. This only affected a very small number of pupils: 5 pupils moved up (4 girls and 1 boy) and 4 moved down (all boys). Two group interviews were carried out towards the end of the summer term: one with all 4 boys who moved down, the other with 3 of the girls who moved up.

These pupils were interesting as a group because they were crossing from one band identity group to another and because they had direct experiences of both

groups to draw upon, rather than the speculation upon which other pupils' opinions are based. Their descriptions of the experience of changing groups helped to develop the idea of band identity while at the same time providing evidence of whether it was as challenging a process as might be expected if band identity was strong.

The reasons for moving these pupils between bands were less clear cut than the original band placement. The decision seemed to have been based on a number of factors, including results of a common assessment taken by all Year 7 pupils at the end of the first term and on behaviour scores. However, these two factors did not entirely explain the decisions as some pupils with equally poor assessment results and behaviour did not get moved out of top band and some who had done well were not moved up. There may have been an element of parental pressure which was not recorded and staff prejudice which was unacknowledged.

7.4.1 Changing bands: moving up

Given the strength of positive emotions that pupils expect would be associated with moving up a band, it was perhaps surprising to find that when it did happen pupils were, at best, ambivalent about it.

The three girls who had moved up, like the pupils interviewed earlier in the year, were not very sure why they had been placed in middle band (one didn't know why and two thought it was something to do with the SATs). All said they were happy with the original middle band class that they had been in.

- The people were friendly and I liked the teachers that I had then
- Most of me friends were in there but I met more people from different schools in that class than I did in this class

- It was good but it was different for me because like I didn't know anyone there was no one from my old school who was in the class. I knew Elizabeth a bit but that was all... but I did make friends.

Making new friends is one of the key challenges that pupils face when they begin secondary school; these girls had succeeded with this in their original middle band class. They also found the work manageable.

- It (the work) was like alright I thought some of it was quite hard but some of it was easy

- It was just like ok it was like some of it was hard and some of it was easy

All three said that they did not know why they had been moved up and had not been expecting it; nobody had told them why or asked if they wanted to be moved. They had each been told of the move by their head of year just before the February half term with a letter containing their new timetable being sent home during the holiday. It was news that seemed to have pleased the families more than the pupils.

- I was puzzled because I'm brainy but I'm not that brainy...

- I think it would have been better (if I had been asked) cos I didn't really want to move. I wanted to be in (old class)

- I had just got settled down in that class and it was like... I didn't want to move

- Me mam was quite pleased but then she said do I want to but then she said I might as well go. I just didn't want to do it... it would be better moving at the end of the year cos like everyone else getting a new timetable and everything

- Me nan was pleased.

- The head of year came and told me and me dad got the letter he was really pleased and me mam was

The pupils all felt that they were 'settled' in their old class and all expressed a degree of anxiety about the move and would have preferred the change to take place at the end of a year.

- It's hard like cos you don't know what subject's on what days cos like forgetting stuff you soon get used to it
- Yeah cos like you settle in and you get used to one thing and then it just all changes...
- You've got like all what you are doing and like if you started in year 8 with all the new work like then you've learnt all the work you needed to learn in year 7 it helps you with the work in year 8
- I would have preferred to move at the end of the year cos I was settled in me old class
- When I thought about it, it did (spoil my holiday) but when I was doing other stuff it wasn't really a problem

Their comments suggested that when it came to establishing friendships in their new class that they had to revert to a strategy used by most pupils at the start of the year which was to rely on primary school friendships.

- It was ok. It was just I had to settle in again. It was easier to meet people because some people I knew was there
- Yeah... some people from my old school were there..

Finally, the 'them and us' language used by pupils indicated that even half a year after they moved from the middle to the top band 'us' was still their original middle band class while 'them' was the new top band class.

- ...in some subjects they've all learnt it but we haven't
- I think in some subjects I have caught up but like in French I don't understand what words mean cos we didn't learn that sort of stuff in the other class and we were learning one thing and they were learning a different thing..
- my class wasn't bad behaved and it's the same as it was in this class.
- Ok it's just I don't finish me work sometimes in class and like loads of people, some other people do and they work really fast and sometimes it's hard to keep up...

7.4.2 Changing bands: moving down

The four boys who were moved down had suggestions as to why they were moved including not doing homework, not doing well on tests and poor behaviour, but like the girls no one seemed to have discussed or explained the move.

- Well I wasn't doing that well on me tests and when I was in (top band) in me science test I accidentally spelt me name wrong so I think that's why I got moved down..

- In French I never did me homework at all and I got a rubbish mark for that and I didn't do any homework at all so I think cos I never got a grade for me homework I got moved down.

- I think it was because I was never doing me homework so I was getting bad reports. If I'd done me homework I would have got a higher mark but with us not doing me homework I was getting low marks and I was getting quite low marks on me tests as well.

- I thought I was going to get moved down every time I done a test like at the start of the year but eventually in the middle of the year I got moved down.

- I think it was three things because I was carrying on in me other class with me other friends, I never done most of me homework and also I got bad marks on most of me tests. That's probably why I got moved down.

These comments suggested that the boys acknowledged responsibility for their downward movement and they professed ambitions to work hard and move back up.

- I think we could get back up into top band if we worked our hardest and we tried

- I've been trying to in the tests

- I quite like it in (middle band) but I'd rather be in a top band class but like its alright in (middle)

The change caused anxiety and upset though it was surprising to me that boys would discuss their feelings quite so openly. The importance of being able to make new friendships was also apparent.

- I was walking along the corridor and HOY seen us and pulled us into her office and told me about it there and I was kind of upset cos I was moving away from me friends and kind of happy going to people that I knew

- I was almost crying cos I liked me friends in that class and I didn't know anyone in middle band

- Like I was like alright but I wish I was still in (top band)

- I would rather move at the start of the year cos when I was in top I knew everyone really well then I had to move to middle and get to know them but if I had moved at the start of the year it would have been better

- I'm scared in case we get moved down again

The boys discussed how they felt that they were different in their new middle bands classes, although they seemed to be at a loss to explain why.

- When I was in top band I acted more mature because... I don't know why... but the middle band just seem to think that they can do anything that the teachers don't want them to do..

- I'd be like naughtier in some lessons than I was

- Ay same here

- two teachers have said that I'm different

None of the boys used any terms which personally associate them with either their old or their new class. They referred to classes either with the impersonal class codes or using impersonal terms such as 'that class' or 'a top band class'. They avoided entirely using personal pronouns we/us and they/them.

The transfer mid-year, and the small number of pupils involved, made them stand out from both groups. Whether pupils moved up or down, it was clear that they all had to deal with anxiety associated with establishing their position in a new group. Those who moved up also had to deal with what they expected to be more challenging work, while those who moved down had to deal with issues of personal failure. The way 'them and us' terminology was used by the girls who moved up suggested that they continued to identify with their original group - and presumably still felt like outsiders in their new group. Meanwhile the boys managed to avoid the use of any personal language that linked them to either class. This may be simply a different way of expressing their ideas but it may be their way of saying that they don't actually belong to either group.

7.5 July 2001: Views at the end of Year 7

The end of Year 7 questionnaire asked pupils whether they thought bands were a good idea and why. Pupils' responses revealed how they viewed both their own in-group and the other out-groups.

In Table 7.1 below the left hand column summarises the kind of language being used by each band to describe themselves, while the right hand column summarises how each band was described by other bands.

There was considerable agreement between these to the extent that the top band's view of themselves is virtually interchangeable with the middle band view of them; similarly the middle band's view of themselves was virtually interchangeable with the top band view of them.

Table 7.1 Pupil views of in- and out-group characteristics

	Description of In-group	Description by Out-group
Top	Clever Confident Brainy people Fast workers Smarter Brighter Swots Know more than middle band Get good marks Better at understanding Work to high standard Improve by working with same ability Held back by working with lower ability	Clever Know what they are good at Brainy Very fast Smart Brilliant Swots Already know things Get to answer all the questions Need hard work Can reach their potential Always ahead Know more Going right
Middle	Stuck Struggle Terrible Not so bright Thick Likely to fall behind Not able to understand top band work Slower workers Not confident Silly ones Wreck others attempts to learn can't cope with hard work average going wrong upset know less	Stuck Struggle Dumb Not so smart Thick Stupid Can't do difficult work Slow workers Don't understand Not very clever Don't do as well as top band Get low marks Would drag top people down Need motivating to work harder to move up Slow learners Fall behind Find work extra hard Don't understand Need chance to contribute Need easy work
Lower	Not bright Shy Poor exam results Get picked on Can't answer questions Need to try harder Prefer to be in another class	Thick Bottom of year Feel awful, bad, not so good or low Upset Stupid Pressured Rejected Miserable Less important

One response which was common to both groups was that bands were a good idea because they confirmed your ability and position within your year group.

Top band

- It gives you and your parents an idea of where you are and the level of your work in the school
- It shows where everyone is at in the year
- You know where you stand
- It shows you your ability

Middle band

- It tells you the average people are working at
- It helps people to understand themselves better
- You want to know where you stand in the year group
- You can see where you are going wrong or right

Lower band

- There is really a point that it can be good so know how good you are

On the face of it, these responses were very similar. However, the context in which they were made is quite different. Having your ability confirmed was a positive thing if you belong to the top band with all its associated positive characteristics. This was not the case if you were in middle or lower band and confirmation of ability reinforced your identity as belonging to a group with negative characteristics.

There were also comments which described the notion that pupils of lower ability would interfere with the learning of higher ability pupils.

Top band

- If you are in a bottom band class mixed with a top band then the bottom band class could hold you back
- If people don't want to work they will drag you down but if they were with other people they would just drag each other down

These comments, particularly the second one, seemed quite harsh. That the top band held such views might be socially undesirable but it was not likely to be damaging to their academic progress. However, similar comments were found in the responses of the middle band pupils.

Middle band

- The clever people can work well and reach their potential and the silly ones get wrong (get told off)
- Some people try to wreck other people's fun and trying to learn

These middle band pupils seemed to believe that they were the kind of people who might be damaging to other pupils' learning if they were taught in the same room. A belief that they could have such a negative impact on the learning of others was unlikely to have a positive impact on their own academic progress.

7.6 Summary

Pupils entered the school with positive expectations of the banding system. However, once labelled as top, middle or bottom band, they quickly developed a 'them and us' mentality and sought to identify the common characteristics of their own band or in-group and to accentuate differences with the other bands or out-groups. The strength of the initial band identity was demonstrated in the responses of some of the pupils who moved bands who retained affiliation to their original identities half a year after the move was made.

Stereotypical social identities emerged which were shared by all groups. The top band identity was one of quick, clever and high achieving pupils while the middle band identity was slow, poorly behaved, not very bright. The lower

band shared all the poor characteristics of the middle band but had the added stigma of being the bottom of the year group.

The identities of the lower and middle band can be described as stigmatised identities with respect to their formal role in school.

In operating the banding system, the school had no deliberate intention of creating stigmatised groups or of discriminating against them. Quite the opposite, the school set up the ability grouping system because it was believed to be of benefit to all pupils. So, unlike other situations where people might be unavoidably members of a of stigmatised group, for example, race or gender, this presents a situation where members of a group, through the process of generating their own identity, adopt negative characteristics and effectively stigmatise themselves.

Most of the discussion so far has focussed on the middle and lower bands. However, the identity adopted by the top band pupils may also be problematic. Their identity is congruent with the aims of the school and has strong, positive characteristics but, as the 'top band' includes more than half of all pupils in the cohort, it was unlikely that all top band pupils could live up to these expectations. Some might feel that they did not belong to the group because they found it difficult to keep up with a fast pace of work or were not able to grasp new concepts as easily as others. Issues may also arise with pupils becoming over-confident.

In the following chapter I will be considering the effect on pupils of these different identities, particularly for the middle and lower band who adopt identities which are negative and stigmatised with respect to their position as learners within the school.

Chapter 8 — Impact on pupils

8.1 Introduction

The previous chapter presented evidence that the group identity of pupils became established very early in the academic year and that pupils in middle and lower band groups adopted identities which were stigmatised with respect to the academic aims of the school.

This chapter will look at whether pupils in top, middle and lower band groups perceived their positions as problematic and whether there were identifiable differences between the behaviours of pupils in these groups. The evidence for this is drawn from Year 6 and Year 7 questionnaires and from school based data and is used to consider four main areas: affiliation with class and school, behaviour, confidence and self esteem, and attitude to work. In each of these four areas data will be drawn from both qualitative and quantitative sources.

8.1.1 Considerations

One important consideration was that pupils might not perceive the banding system to be a problem. Evidence in the previous chapter suggested that while there might have been some concern amongst pupils that the effects of the banding system were unfair, on the whole, they accepted the status quo. The existence of the banded system was taken for granted as a permanent characteristic of the school and pupils seemed to attribute their position within the system to personal characteristics such as ability or behaviour.

The proposition is that a stigmatised identity may influence pupils' behaviour without them necessarily identifying the banding system as problematic. So, for example, some pupils might experience their stigmatised identity as

generalised feelings of dislike for school and might respond to this by behaving in a non-conforming way, perhaps by taking days off school or avoiding work during lessons.

Another issue to consider was that while a stigmatised identity might be an influence on pupils' responses to school it was not the only possible cause of some of the observable behaviours. Hence, it was necessary to demonstrate not just that these behaviours existed but that there were significant differences between bands and that allocation to bands was likely to be the cause of the differences. One of the strengths of this study was that it could, because of the change in ability grouping practice within the school, make comparisons both within a cohort and between cohorts. Thus comparisons could be made between Year 6 and Year 7 data, looking at the effect of transfer on either the banded or the mixed ability system, and they could also be made between data for the 2001 banded cohort and the 2003 mixed ability cohort, i.e. between groups who should be equivalent in every way possible except as regards group identity.

8.1.2 Making comparisons within and between cohorts

For the purposes of analysis only, pupils from the mixed ability cohort have been assigned to bands using the same criteria that were used to assign pupils in the banded cohort to their bands. For the mixed ability pupils these bands have no existence in reality and so the trigger to develop group identities is absent. Hence the 'top', 'middle' and 'lower band' groups in the mixed ability cohort should be equivalent in every way possible to the top, middle and lower band groups in the banded cohort except as regards group identity. This enables a comparison to be made between groups of pupils who either have or

do not have a band identity as part of their social identity within school. For middle and lower band pupils, this essentially provides a comparison between pupils in the banded cohort who are likely to have adopted a stigmatised identity and those in the mixed ability cohort who have far less reason to have done so.

8.2 Affiliation with class and school

Two sources of evidence were used to consider the affiliation of pupils with their class and the school. These were qualitative data from responses to the questionnaires given to all pupils at the end of Year 7 and quantitative data relating to school attendance. These were considered together because they can both be seen as indicators of whether pupils are comfortable in their situation at school.

8.2.1 Pupil comments

In the Year 7 questionnaire pupils were asked the following question:

"You have been here for nearly one year. How do you feel about the class you are in?"

Some pupils' responses indicated that they were experiencing dissatisfaction with their situation.

Out of nine responses from the small lower band group five were negative. Lower band pupils did not seem to like being in their class even though most of them liked all the people in their class. Some pupils gave 'being picked on' as a reason, but most were not able to explain the problem.

- I feel as though I want to be in a different class but I like all my class mates
- It is brilliant but sometimes I wish I was in middle because people call you and make fun of you
- I like everyone in my class but I don't like being in 7 (bottom)

26 middle band pupils (40%) also expressed dissatisfaction with their classes and presented a range of reasons for not liking their classes. These included friendship difficulties, poor behaviour and the belief that they could make better academic progress in the upper band. As with the lower band, some pupils presented conflicted views; they liked the people in the class, but didn't like the way they behaved either with respect to work or to personal relationships.

- I am really unhappy because they are all nasty in my class
- I feel like I want to get moved up because I don't get on with my work because my class is naughty
- I feel good because I have got to know most of the children in my class but I do get picked on by some people in my class.
- I feel ok I would like to be in a higher band

In the top band, not only was there a lower proportion of pupils (15%) who made negative comments but, with the exception of one comment, the issues were not with the class. Areas of difficulty were individual issues such as not coping with the work or having friends who were in a different group.

- Upset because I have to walk around the school to my friends because they are all in the same class apart from me
- I think I should be in middle band because top band is slightly too fast for me
- It is mostly disrupted and we hardly get to learn

Pupils from lower and middle band groups were more likely than upper band pupils to comment that they would like to move to a different group. Conversely, a higher proportion of upper band pupils (10%) commented that they would like to stay in the same group.

- I think it is great. We are good but we have fun and I would hate to be moved.

- I feel I've got to know everyone and my teachers. I'll feel sad if I had to go to another class

Around 4% of middle band pupils said that they would like to stay in the same group but their comments lacked the enthusiasm expressed by the upper band.

- My work is not too high or too low. I hope to stay in the same class
- I would like to stay in middle as I can cope with the work

Not one pupil said that they wanted to stay in the lower band.

This evidence suggested that, in the 2001 banded cohort, pupils in the middle and lower band were more likely to be unhappy with their situation than pupils in the upper band.

In the 2003 mixed ability cohort, the overall proportion of pupils' comments categorised as happy or unhappy remained the same as in 2001, although happiness and unhappiness were now evenly distributed across the ability range and not concentrated in pupils of mid to low ability. However, the mixed ability cohort did have a lower proportion of pupils who would like to change classes, 1% compared to 8% in the banded cohort, which suggested that the degree of dissatisfaction might have been lower.

8.2.2 Absence from school

Year 7 attendance data from school records were available for both the 2001 and 2003 cohorts. This enabled comparisons to be made for different ability groups within and between the two cohorts. While some absence from school has legitimate cause, some is likely to have school-related issues at least as a contributory factor. Some of this may be hidden in authorised absence rates, where pupils have persuaded parents or guardians that there is a good reason why they are not able to go to school. Unauthorised absence rates were

considered more likely to reflect deliberate 'avoidance' strategies which might arise as the result of stigmatised identities.

Table 8.1 below shows the percentage of pupils who had at least one absence at some point during Year 7. The figures are broken down into those relating to unauthorised absence and those relating to authorised absence. While the percentage of pupils with at least one authorised absence was similar in both cohorts, the percentage of pupils with at least one unauthorised absence was higher in the 2001 banded cohort (39%) than it was in the 2003 mixed ability cohort (13%). Hence, overall the number of pupils with either authorised or unauthorised absence was higher in the 2001 banded cohort.

Table 8.1 Absences during Year 7 for 2001 and 2003 cohorts

Pupils with at least one absence during Year 7		Whole cohort	Lower band	Middle band	Upper band
2001 Banded cohort	Authorised absence	92% (204)	93% (14)	93% (83)	91% (107)
	Unauthorised absence	39% (85)	27% (4)	45% (40)	35% (41)
	Total absence	96% (207)	93% (14)	97% (86)	91% (107)
	Total number of pupils	221	15	89	117
2003 Mixed ability cohort	Authorised absence	91% (208)	100% (11)	95% (93)	87% (104)
	Unauthorised absence	13% (30)	0% (0)	21% (21)	8% (9)
	Total absence	91% (208)	100% (11)	95% (93)	90% (104)
	Total number of pupils	229	11	98	120

Figure 8.1 below shows that not only was the number of pupils engaging in unauthorised absence lower in the 2003 mixed ability cohort but that the extent to which they were engaging was also reduced. The 2001 banded cohort had a lower percentage (61%) of pupils with no unauthorised absences and a

higher percentage of pupils taking occasional unauthorised days off. The 2003 mixed ability cohort had a higher percentage (87%) of pupils with no unauthorised absences and a lower percentage of mixed ability pupils taking occasional unauthorised days off. Overall, in the mixed ability cohort fewer pupils were taking fewer unauthorised days off. However, in both cohorts there were a very small number of individual pupils who had high levels (>5%) of unauthorised absence.

Figure 8.1 Graph to show unauthorised absence in 2001 and 2003 cohorts
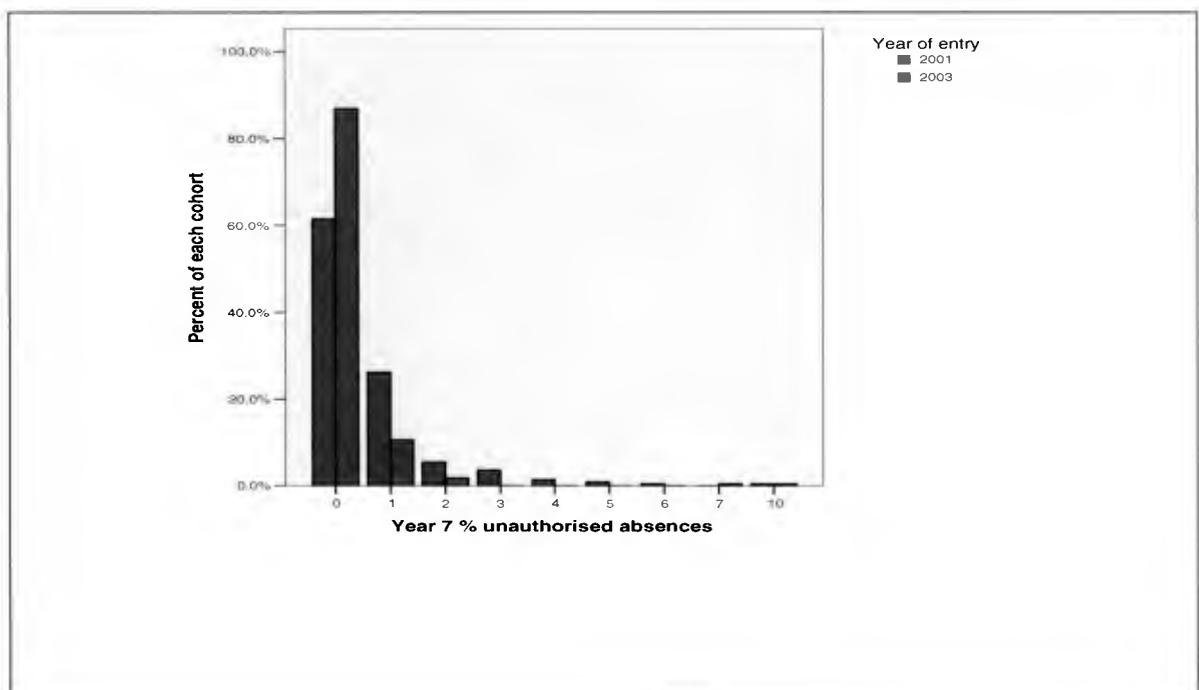
The impact of band placement on absence rates can be demonstrated by making comparisons between bands within each cohort separately. Table 8.2 below shows that when absence rates in the stigmatised lower and middle band group were compared with the upper band group in the 2001 cohort, there were significant differences in both authorised and unauthorised absence with a small to medium effect size (2001: authorised r=0.23, unauthorised r=0.26, overall r=0.27). In the 2003 mixed ability cohort, where the lower and middle

group was not stigmatised by the banding process, there were significant differences between authorised absence, and hence also with overall absence; effect sizes were similar to 2001 (2003: authorised r= 0.23, overall r= 0.23). However, there was no significant difference between unauthorised absence rate for the lower and middle ability group and the upper group.

This suggested that in the banded system, lower and middle ability pupils were more likely than higher ability pupils to be involved with unauthorised absence, while in the mixed ability system levels of unauthorised absence were not related to ability.

Table 8.2 Percentage absences in Year 7: comparing bands within each cohort

		Lower & middle band				Upper band				t	Significance (2-tailed)	
		min	max	mean	Standard error	min	max	mean	Standard error			
2001 Banded cohort	Authorised absences	0	22	5.91	0.49	0	17	4.09	0.31	3.15	.002	N=221 df=219
	Unauthorised absences	0	10	0.92	0.16	0	3	0.41	0.06	3.09	.002	
	Total absences	0	25	6.84	0.56	0	17	4.50	0.32	3.63	.000	
2003 Mixed ability cohort	Authorised absences	0	31	6.61	0.55	0	26	4.29	0.40	3.47	.001	N=228 df=226
	Unauthorised absences	0	10	0.30	0.10	0	7	0.13	0.06	1.44	NS	
	Total absences	0	31	6.92	0.56	0	26	4.42	0.42	3.60	.000	

Comparisons between the two cohorts show that there were no significant differences between the authorised and overall absence rates in the cohort as a whole or in the bands separately. However, there were significant differences in the unauthorised absence rates when comparing means for the upper band, middle band and the whole cohort, with lower rates evident in the 2003 mixed ability cohort; effect sizes were small to medium (whole cohort r=0.20, top

r=0.20, middle r=0.22). The difference for the lower band was not significant, although as there was no unauthorised absence in this group in 2003 it is hard to see how it could be further improved in practice.

Table 8.3 Percentage absences in Year 7: comparing cohorts

		2001 Banded cohort				2003 mixed ability cohort				t	Significance (2-tailed)	
		min	max	mean	Standard error	min	max	mean	Standard error			
Whole cohort	Authorised absences	0	22	4.95	0.29	0	31	5.38	0.34	-0.96	NS	
	Unauthorised absences	0	10	0.65	0.08	0	10	0.21	0.06	4.37	.000	N=449 df=448
	Total absences	0	25	5.59	0.32	0	31	5.61	0.37	-0.04	NS	
Upper band	Authorised absences	0	17	4.09	0.31	0	26	4.25	0.40	-0.33	NS	
	Unauthorised absences	0	3	0.41	0.06	0	7	0.13	0.06	3.21	.002	N=236 df=235
	Total absences	0	17	4.49	0.32	0	26	4.42	0.42	0.14	NS	
Middle band	Authorised absences	0	19	5.64	0.49	0	28	6.27	0.53	-0.87	NS	
	Unauthorised absences	0	10	0.98	0.17	0	10	0.34	0.11	3.11	.002	N=187 df=185
	Total absences	0	21	6.62	0.56	0	30	6.60	0.55	0.02	NS	
Lower band	Authorised absences	0	22	7.53	1.82	1	31	9.73	0.27	-0.70	NS	
	Unauthorised absences	0	4	0.60	0.32	0	0	0.00	0.00	1.87	NS	N=26 df=24
	Total absences	0	25	8.13	1.99	1	31	9.73	2.68	-0.49	NS	

Overall, the attendance data suggested that pupils across the ability range benefited from the 2003 mixed ability system in terms of reduction in rates of unauthorised absence. For middle and lower band pupils, some of this improvement could be due to their improved relationship with their class as indicated by their comments about whether or not they liked their class and

hence a reduced need to exhibit avoidance behaviours. However, the fact that there are improvements across the whole ability range suggests that there may be additional factors operating. For example, it is possible that in the mixed ability cohort the coincidence of the teaching and tutor group may provide a more secure, comfortable social group for pupils of all abilities which may lack both the stigma of lower and middle band groups and the competitiveness of a top band group.

8.3 Behaviour

The two sources of data used as evidence of behaviour are pupil responses to open-ended questions on the Year 7 questionnaires and teacher-assessed behaviour scores.

8.3.1 Pupil comments

Differences in behaviour were evident from the comments of Year 7 pupils. There were three comments (<5% of upper band) from upper band pupils who made mention of mild behaviour issues.

Top band

- I feel it is ok sometimes people talk too much
- I like most things about my class but there are some annoying and interruptive people

Nine middle band comments (15% of middle band) concerned behaviour and the nature of the comments suggested that the situations that they were describing were sufficiently serious to get the class into trouble.

Middle band

- Very unhappy because my class always gets told off
- I don't like the class I am in because it is very disruptive and gets you in trouble all the time

- There are some well behaved people in my class but some spoil the class and that's a shame

- It's alright but our class gets in trouble because of trouble makers

- I would rather get moved up because my class is quite naughty and get bad comments

In the 2003 mixed ability cohort only 2 responses (1% of cohort) referred to behaviour issues and, like the top band, these made no mention of getting into trouble as a group (although one pupil mentioned missing out on rewards).

Mixed ability

- Some people are annoying and loud

- I don't really like this class because it takes a long time to settle down and we don't get any work done which means no merits

This evidence suggested that there was a higher level of behaviour problems in the low and middle ability groups in the 2001 banded cohort compared to the top band group and that mixed ability groups had levels of behaviour problems comparable to top band groups rather than middle or lower band groups. These findings were reflected in the school based data relating to behaviour.

8.3.2 School behaviour data

Behaviour scores were recorded by primary schools at the end of Year 6 and by subject teachers during Year 7 using the same scale (1 excellent, 2 good, 3 satisfactory, 4 poor, 5 cause for concern). Year 6 and Year 7 scores were available for both cohorts enabling comparisons to be made before and after banding and between cohorts and bands.

There was a statistically significant correlation between attainment as measured by KS2 average scores and behaviour scores which showed that the higher the attainment, the lower (i.e. better) the behaviour score (see table 8.4 below).

Table 8.4 Correlations between KS2 average SATS scores and behaviour scores

	KS2 average score with Year 6 behaviour score		KS2 average score with Year 7 behaviour score	
	Pearson's coefficient	Significance	Pearson's coefficient	significance
2001 N= 205	-.293	.000	-.355	.000
2003 N= 151	-.378	.000	-.448	.000

These trends were evident in Year 6 and Year 7 in both cohorts and were likely to reflect a combination of genuine differences in behaviour and the subjectivity of the scale whereby, for example, poor class work might be attributed to unwillingness to make an effort rather than lack of ability. Comparisons between the two cohorts of Year 6 and Year 7 behaviour scores for the whole cohort and for each band separately are shown in table 8.5 below.

Table 8.5 Behaviour scores: comparing 2001 with 2003 cohorts for Year 6 and Year 7

		2001 Banded cohort				2003 Mixed ability cohort				t	Significance (2-tailed)	
		min	max	mean	Standard error	min	max	mean	Standard error			
Year 6 behaviour scores	Whole cohort	1	5	1.70	0.07	1	5	1.69	0.08	0.12	NS	N=361 df=359
	Upper band	1	5	1.45	0.07	1	5	1.45	0.08	0.42	NS	N=185 df=183
	Middle band	1	5	2.00	0.12	1	5	1.81	0.13	1.05	NS	N=154 df=152
	Lower band	1	5	2.00	0.41	1	5	2.88	0.48	1.39	NS	N=21 df=19
Year 7 behaviour scores	Whole cohort	1	5	2.06	0.37	1	5	1.65	0.03	8.57	.000	N=449 df=447
	Upper band	1	5	1.89	0.04	1	4	1.52	0.03	7.17	.000	N=236 df=234
	Middle band	1	5	2.21	0.06	1	5	1.74	0.04	6.69	.000	N=187 df=185
	Lower band	1	5	2.43	0.22	1	5	2.34	0.22	0.30	NS	N=26 df=24

(note: behaviour scale 1=excellent, 2=good, 3=satisfactory,4=poor, 5=cause for concern)

This comparison showed that although there were no significant differences between cohorts at the end of Year 6, in Year 7 the 2003 mixed ability cohort had lower (i.e. better) scores than the 2001 banded cohort across the ability range and these differences were significant for the cohort as a whole and for the upper and middle bands with medium effect sizes (Year 7: whole cohort r=0.38, top r=0.44, middle r=0.44).

Comparisons were also made between Year 6 and Year 7 behaviour scores for each cohort as a whole and for each band within a cohort (see Table 8.6).

Table 8.6 Behaviour scores: comparing Year 6 with Year 7 for both cohorts

		Year 6 behaviour scores				Year 7 behaviour scores				t	Significance (2-tailed)	
		min	max	mean	Standard error	min	max	mean	Standard error			
2001 Banded cohort	Whole cohort	1	5	1.71	0.07	1	5	2.05	0.04	-6.11	.000	N=208 df=207
	Upper band	1	5	1.45	0.07	1	5	1.89	0.04	-8.73	.000	N=111 df=110
	Middle band	1	5	2.00	0.12	1	5	2.20	0.06	-1.82	NS	N=84 df=83
	Lower band	1	5	2.00	0.41	1	5	2.42	0.25	-1.25	NS	N=13 df=12
2003 Mixed ability cohort	Whole cohort	1	5	1.69	0.08	1	5	1.63	0.03	0.90	NS	N=152 df=151
	Upper band	1	5	1.45	0.08	1	4	1.48	0.03	-0.47	NS	N=74 df=73
	Middle band	1	5	1.81	0.13	1	5	1.73	0.05	0.88	NS	N=69 df=68
	Lower band	1	5	2.88	0.48	1	5	2.25	0.24	2.02	NS	N=8 df=7

(note: behaviour scale 1=excellent, 2=good, 3=satisfactory,4=poor, 5=cause for concern)

The differences between scores in Year 7 with those in Year 6 provide a measure of whether behaviour has improved or deteriorated in the transfer from primary to secondary school, relative to other pupils within the cohort. In

the case of the 2001 cohort these were scores measured before and after pupils have been banded and had adopted group identities.

These comparisons showed that in the 2001 banded cohort between Year 6 and 7 there was a significant increase in behaviour scores which corresponds to deterioration in behaviour for the cohort as a whole (medium effect size r=0.39) and for the upper band (large effect size r=0.64). It was notable that a large effect size was found for the change in the upper band behaviour scores, indicating that the greatest deterioration of behaviour was found in the top band.

In the 2003 mixed ability cohort there were no significant changes between Year 6 and Year 7 for this cohort. This indicates that there was not the deterioration in behaviour that was seen in the banded cohort.

Overall, these school-based behaviour data supported the evidence from pupil comments which suggested that behaviour in lower and middle band classes was worse than in top band classes and that behaviour in mixed ability classes compared favourably with behaviour in top band classes.

8.4 Confidence and self esteem

Here the two sources of data are both from the Year 7 pupil questionnaires; pupil comments and their scores on a self-esteem scale.

8.4.1 Pupil comments

In the 2001 banded cohort, 11 upper band pupils (10%) made comments that suggested their position in their class had boosted their confidence or given them positive feelings about themselves. For example,

- I feel that the position my class is in (top band) makes me very confident

- I feel great about the class I am in

- I feel confident and more enthusiastic in class

- I feel proud of being in 7 (top)

Only one upper band pupil made a not-confident comment.

- I am not happy because I do not feel confident in this class

There was one single comment from the middle and lower band pupils about feeling confident and none about lack of confidence.

- Confident that I have done well

Confidence, or lack of it, did not feature in any comments from the 2003 mixed ability cohort.

8.4.2 Self esteem scores

The pupil questionnaires included the Lawrence self esteem scale (see Appendix 3) as a measure of general self esteem in a school context and these data were available for Year 6 and 7 for the 2001 banded cohort and Year 7 for the 2003 mixed ability cohort.

Table 8.7 Self esteem scores: comparing Year 6 with Year 7 for the 2001 banded cohort

	Year 6 self esteem scores				Year 7 self esteem scores				t	Significance (2-tailed)	
	min	max	mean	Standard error	min	max	mean	Standard error			
Whole cohort	2	24	16.65	0.35	3	24	18.08	0.33	4.20	.000	N=178 df=177
Upper band	3	24	17.43	0.44	5	24	19.45	0.38	4.64	.000	N=101 df=100
Middle band	2	24	15.88	0.56	3	24	16.66	0.54	1.34	NS	N=68 df=67
Lower band	6	24	13.67	1.74	6	22	13.56	1.55	-0.08	NS	N=9 df=8

For the 2001 cohort self esteem scores were available for Year 6 and 7 which enabled comparisons to be made before and after banding took place (Table 8.7 above).

These showed that there was a significant increase in the mean self esteem scores of cohort as a whole in Year 7 (medium effect size r=0.30) compared to Year 6. However, when these data were broken down by band only the top band showed a significant increase in mean scores (medium effect size r=0.42).

Table 8.8 Year 7 self esteem scores: comparing cohorts

	Year 7 self esteem scores 2001 Banded cohort				Year 7 self esteem scores 2003 Mixed ability cohort				t	Significance (2-tailed)	
	min	max	mean	Standard error	min	max	mean	Standard error			
Whole cohort	3	24	17.99	0.33	3	24	17.31	0.30	-1.54	NS	N=395 df=393
Upper band	5	24	19.45	0.38	6	24	18.00	0.40	-2.64	.009	N=215 df=213
Middle band	3	24	16.49	0.52	3	24	16.40	0.46	-0.13	NS	N=162 df=160
Lower band	6	22	13.56	1.74	12	22	17.78	1.13	2.04	.029	N=18 df=16

Comparing the 2003 mixed ability cohort with the 2001 banded cohort (Table 8.8) showed that there were no significant differences in the cohort as a whole. However, the scores for the higher ability upper band pupils were significantly lower (small effect size r=0.17) in the mixed ability cohort, although their mean score of 18.00 was exactly that quoted as the expected mean for this age group (see Appendix 3). The lower band in 2001 had a mean self esteem score of 13.56, which was below the normal expected range; however, in 2003 it was

17.78 which was very close to the expected mean. The mean score for the lower band was significantly higher in 2003 (medium effect size r=0.45).

Taking the pupil comments and the self esteem scores together, it appeared that banding had the effect of boosting the confidence and raising the self esteem of the higher ability pupils in the upper band, while it depressed the self esteem of the stigmatised middle and lower bands. Mixed ability was particularly beneficial for the self esteem of lower band pupils.

8.5 Attitude to work

There were two sources of evidence relating to pupils' attitudes to work. These were pupil comments drawn from questionnaires and interviews and attitude to work scores.

8.5.1 Pupil comments

In the 2001 banded cohort both middle and upper band pupils commented that they were coping with their work.

Middle

- It's easy but a bit hard in some classes. I think I am alright where I am.
- I am really happy with the class I'm in. My work is not too high or too low. I hope to stay in the same class
- I like my class because the work is not hard but not easy and in year 6 I hated maths and now I love it. I like my teachers.

Upper

- I feel very happy about my class. I feel I am coping with the standard of work and get on well with my class
- I think I am working to the standard expected in some things and I do not struggle
- I like the people and most of the teachers I can cope with the class work and homework

Some middle band pupils also commented that the work was easy, sometimes too easy.

Middle

- I feel ok I know everybody I feel that the work is getting easy
- I think I should be in a different class because all the work is too easy
- Happy, upset at times because I feel I need to work harder

Middle band pupils were also more likely to make comments that suggested that working was important to them which were linked to comments about poor behaviour,

Middle

- I feel like I want to get moved up because I don't get on with my work because my class is naughty
- I think people like to misbehave and I like to get my work done
- I feel I can do my work but the rest go on daft and silly

Only one upper band pupil made a similar comment; this may be a reflection of the better behaviour in top band classes.

Upper

- I feel like the class is good at working but a couple of people spoil it. I wish I was in a better class with people who want to work.

However, middle band pupils also made some positive comments about learning and work in their classes.

Middle

- I like the class I am in because it is fun and my friends are there and to learn
- I feel that my class work hard and I have worked hard this year
- I like my class I have just gotten to know everybody and I enjoy lessons with all my friends

8.5.2 Attitude to work scores

Pupil questionnaires included a measure of attitude to work scores and these data were available for Year 6 and Year 7 for the 2001 banded cohort and Year 7 for the 2003 mixed ability cohort. Issues relating to the validity of the attitude to work scale were discussed in Chapter 5. However, despite the concerns raised there, the findings are included as they are the only data which relate to pupil self-reported attitude to work.

It might have been expected that, as with behaviour, there would be a correlation between attainment, as measured by KS2 averages SATs scores, and attitude to work. However, the only correlation found to be significant was for the 2001 banded cohort scores for Year 7 and this indicated that higher attaining pupils tended to have lower (worse) attitude to work scores which was the opposite of what might be expected.

Neither the 2001 Year 6 scores nor the 2003 Year 7 scores showed any correlation between attainment and attitude to work. One possible interpretation of these findings is that whatever their ability pupils were equally likely to be hard-working; another possibility was that attitude to work has no impact on attainment.

Table 8.9 Correlations between KS2 average SATS scores and Attitude to work scores

	KS2 average score with Year 6 attitude to work score		KS2 average score with Year 7 attitude to work score	
	Pearson's coefficient	Significance	Pearson's coefficient	significance
2001 N= 189	.030	NS	-.193	.009
2003 N= 151	n/a	n/a	.005	NS

Table 8.10 shows a comparison of the data for the 2001 cohort Year 6 (before banding) and Year 7 (after banding). This showed that significant drops in attitude to work scores occurred in the cohort as a whole and with both the

upper and middle bands (Effect sizes: whole cohort r=0.36, upper band r=0.44, middle band r=0.29). The attitude to work score of the lower band group did not change significantly.

Table 8.10 Attitude to work scores: comparing Year 6 with Year 7 for the banded cohort

	Year 6 attitude to work scores				Year 7 attitude to work scores				t	Significance (2-tailed)	
	min	max	mean	Standard error	min	max	mean	Standard error			
Whole cohort	1	10	7.49	0.11	1	10	6.68	0.14	-5.23	.000	N=187 Df=186
Upper band	3	10	7.60	0.15	1	10	6.52	0.19	-5.10	.000	N=104 Df=103
Middle band	3	10	7.46	0.19	1	10	6.85	0.21	-2.54	.026	N=71 df=70
Lower band	3	10	6.67	0.45	4	9	7.08	0.45	0.92	NS	N=12 df=11

Deterioration in attitude to work, indicated by a drop in score, was perhaps to be expected as pupils completed the Year 6 questionnaires during their first visit to the secondary school at a time when they were likely to have aspirations of working hard. By the time they completed the second questionnaire in Year 7, evidence from their comments suggested that most pupils have found that they can cope with their work or found it easy, and it was possible that they could do their work without engaging maximum effort.

The difference in response of middle and upper band pupils raised some interesting questions. If negative group identity impacted on their motivation to engage with academic work, middle and lower band group might be expected to show a drop in attitude to work scores. However, we find that

middle and lower band scores drop less than upper band scores. There is evidence from the literature (Schwartz, 1981; Oakes, 1985) that teachers place greater emphasis on study skills and learning behaviours when they are dealing with middle and lower band pupils. These are areas over which pupils might be expected to exert control, unlike ability which is seen as less malleable (Dweck, 1986). This may encourage pupils in middle band to continue to espouse the need for hard work, while pupils in upper band who were confident (perhaps over-confident) of their abilities might expect to be able to achieve without exerting themselves.

These self-reported attitudes to work raised one of the contradictions of ability grouping which is the difference between individually stated aims and collective action. So, for example, whilst as individuals middle band pupils might profess a commitment to working and doing well, once placed in groups, many behaved in a manner that directly conflicted with these aims.

8.6 Summary

This chapter set out to consider whether placement in a band influenced pupils' responses to school in four main areas: affiliation with class and school, behaviour, confidence and self esteem, and attitude to work.

In the 2001 banded cohort, significant effects were found in all areas when comparisons were made between bands indicating that placement in bands had wide-ranging implications. With the exception of attitude to work and change in behaviour score from Year 6 to Year 7, all the indicators considered showed less favourable responses in the middle and lower bands when compared to the upper band.

Middle and lower band pupils were found to be less likely to be happy in their class and were more likely to have unauthorised absence from school. They were more likely to express concerns with the behaviour in their classes and were likely to have worse behaviour scores. They were less likely to express confidence and more likely to have low self esteem. However, they were likely to express more interest in 'work'.

In the 2003 mixed ability cohort the responses of pupils across the ability range were at least comparable with the upper band in the 2001 banded cohort. Compared to pupils in the banded cohort, in the mixed ability cohort pupils of all abilities were significantly less likely to have unauthorised absences, had significantly better behaviour scores and were less likely to report wanting to move classes or that their class was poorly behaved. Lower ability pupils had significantly higher self esteem.

These comparisons between pupils of lower and middle ability pupils in the banded cohort and similar pupils in the mixed ability cohort indicate that the characteristics typically seen in ability grouped systems are not simply a product of grouping together pupils with similar characteristics and suggests that the process of grouping pupils has an impact on these pupils and produces a polarisation in attitudes and behaviour. If this is considered in terms of the adoption of social identities, some of these behaviours can be interpreted as responses to the stigmatised identities that middle and lower band pupils have adopted, for example, increased unauthorised absence could represent an avoidance strategy while emphasising the importance of 'work' could represent a problem solving strategy.

Chapter 9   Impact on learning behaviours

9.1 Introduction

Evidence in Chapter 8 suggested that, compared to top band pupils, middle band pupils were more likely to have poor behaviour, poor attendance, and lower self esteem and confidence. These effects were likely to have an impact on social classroom interactions. However, in addition we have the possibility that they might also impact on learning behaviours.

In this chapter I will be using the framework proposed by Dweck (1986) to analyse evidence from pupil questionnaires and lesson observations in terms of theories of intelligence and goal orientation. This framework provides the link between 'confidence', which might be considered as a social consideration and hence secondary to the academic aims of the school, and learning behaviours which are fundamental to the school's core purpose. Beliefs about intelligence and goal orientation are important as, according to Dweck (1986), they interact with pupils' confidence levels and influence learning behaviour patterns (See Chapter 4 Figure 4.2 Achievement goals and achievement behaviour).

Consideration will be given to whether the risk factors for adopting 'helpless' behaviour patterns are more prevalent in the middle and lower bands and to whether differences in learning behaviours are apparent in classroom interactions.

9.2 Beliefs about intelligence

Pupils arrive at their view of intelligence in the context of their experiences; they are likely to be particularly influenced by areas where intelligence is

pertinent such as school. By the time the pupils in this study arrived in Year 7 they would have experienced formal national assessments (KS1 and KS2 SATS) and during Year 7 they experienced CATS tests under exam hall conditions as well as frequent assessments in all subjects and regular reports home of numerical National Curriculum level data. These experiences seem likely to have reinforced the notion that intelligence was a fixed entity that could be measured, particularly when adults placed great importance on the data, used them to make judgements and, in the case of the banded cohort, used them as the basis for important decisions. By the end of Year 7, pupils' experiences of school may well have imposed an 'entity' theory of intelligence upon them.

9.2.1 Interpreting evidence from pupil questionnaires

The idea that pupils' theories of intelligence might be impacting on their learning behaviours in the classroom emerged from analyses of questionnaire and interview data. For example, in the 2001 banded cohort, much of the language used by pupils in their descriptions of the characteristics of their in and out groups (see Chapter 7 Table 7.1) clearly alluded to intelligence. Some of this language was explicit, for example, dumb, clever, smart, average, thick; other expressions were less direct, for example, ability, standard or level. Pupil responses seemed to suggest that while some attributed success to innate intelligence, others attributed it to effort and expressed beliefs that you got more intelligent if you worked harder. In particular, although the question, *"Do you think it is a good idea to have top, middle and bottom band classes?"*, was not specifically designed to explore pupils' theories of intelligence it did elicit responses which could be interpreted in these terms. As it seemed improbable that 11 year old pupils would ever have explicitly considered their view of

intelligence it was possible that indirect questioning of this sort might be a more appropriate approach to exploring these issues than direct questioning.

Responses were categorised into those where pupils seemed to hold the 'entity theory' view that intelligence was a fixed characteristic and those where pupils seemed to hold the 'incremental theory' view that intelligence could be developed. Some language, for example, references to speed of work, clearly related to intelligence but was difficult to interpret as either entity or incremental and, hence, such comments were not included in this analysis. Since there was a degree of subjectivity in the interpretation of these comments, the analysis of responses was carried out in two stages to avoid bias. First, responses were categorised in terms of their view of intelligence and then they were categorised in terms of band.

9.2.2 Banded cohort entity theory comments

Pupil comments that suggested they might ascribe to an 'entity' theory of intelligence included:

- It puts smarter children in one class and not so smart in other classes
- You are in a class with people at your own level
- It shows where everyone is at in the year
- Some people know more than others
- Some people are brainier than other people
- It shows that people are either clever or stupid
- You are working with people of your own ability

The common factor in these comments was that some kind of judgement had been made about the intelligence of these pupils and that these judgements appeared to be accepted as valid.

9.2.3 Banded cohort incremental theory comments

Pupil comments that suggested they might ascribe to an 'incremental' theory of intelligence included:

- I have tried my hardest in my SATs and I try to listen really well in class

- I would like to have more work and harder work so I have a better brain

- It doesn't matter if you're not top because you can work up

- You know what you're good at and you'll have to practice what you are not good at

- People who are clever should be pushed to get better

Here there were pupils who considered that their attainment at KS2 was as a result of hard work and that work could lead to improvement in the future and it could make you more intelligent.

9.2.4 Mixed ability cohort comments

From the mixed ability cohort there were a few comments in the entity theory category which were similar to those found in the banded cohort where pupils felt they would get on better with pupils of similar ability to themselves.

- If you are a top band student in a mixed class you would be held back

- I won't be behind because some people in my class are smarter than me

- It could help me if I am with other people of my ability

Some pupils commented that they would like to know where they stood in the ability hierarchy, while others said they would rather not know in case the judgements were not favourable.

- You would know if you were not bright

- I would like to know how smart I am

There were also some who acknowledged and valued different abilities.

- I like working with people who are brainier and less brainy than me

- I like being mixed so you could maybe help people

- I like staying with my friends because they know more things than me and they could help me

Comments in the incremental theory category included:

- It would help the brainier people become cleverer

- You will get to learn more

- Then all the people who are at the same stage of learning would be together

These suggested that these pupils believed that it was possible to become 'cleverer' and also that learning, as opposed to achieving, was what it was about.

9.2.5 Comparing banded and mixed ability comments

Table 9.1 below shows the number of responses from pupils that included references to intelligence that could be categorised as either 'entity' or 'incremental' theory.

Table 9.1 Pupil responses that made reference to theories of intelligence

		Theory of intelligence	Yr 6		Yr 7	
			No. (%) of theory of intelligence responses	% of total responses	No. (%) of theory of intelligence responses	% of total responses
2001 banded cohort	Top (120 pupils)	Entity	38(46)	32	43(88)	36
		Incremental	45(54)	38	6(12)	5
	Middle & lower (103 pupils)	Entity	26(51)	25	25(71)	24
		Incremental	25(49)	24	10 (29)	10
	Total (223 pupils)	Entity	64(48)	29	68(81)	30
		Incremental	70(52)	31	16(19)	7
2003 mixed ability cohort	Total (219 pupils)	Entity	n/a	n/a	20(41)	10
		Incremental	n/a	n/a	29(49)	13

In the banded cohort the transfer from primary to secondary school was accompanied by a drop in the number of pupils making some reference to

'intelligence' in their responses. This decrease was largely accounted for by the reduction in the number of pupils who subscribed to the incremental theory. This drop was apparent across the ability range.

In the mixed ability cohort overall there were fewer pupils making comments that referred to intelligence and these were evenly divided between the two theories.

9.3 Goal orientation, confidence and helpless or mastery behaviour

According to Dweck (1986) pupils who subscribe to the 'entity' theory are likely to be oriented towards performance goals where the aim is to gain positive judgements or avoid negative judgements of competence while those who subscribe to the 'incremental' theory are likely to orient towards learning goals where the aim is to increase competence. The evidence from pupil questionnaires suggested that in the banded cohort pupils of all abilities were more likely to subscribe to the 'entity' theory of intelligence and hence, were more likely to be oriented towards performance goals.

Dweck suggests that helpless learning behaviours, where pupils will avoid challenge and will not persist with a learning task, will arise where pupils are low in confidence and have a performance goal orientation. In Chapter 7 pupils' descriptions of in-groups (table 7.1) included "confident" for top bands and "not confident" for middle bands, and the evidence presented in Chapter 8 showed that being placed in a low or middle ability group lowered pupils' self esteem, while being placed in a high ability group raised self esteem. We would therefore expect to see more evidence of helpless behaviour in middle

and lower band groups because these groups were likely to have lower confidence levels.

In lesson observations, indicators of helplessness might include a range of commonly observed classroom behaviours including work-avoidance and attention-seeking behaviours. In the videos of lessons pupils were observed deploying a range of strategies to avoid engaging with work. These strategies enabled pupils to avoid immediate learning challenges by impeding the development of activities during that lesson. They also reduced the likelihood of being given challenging tasks in the future because the difficulties that teachers experienced were likely to be taken into account when future lessons were planned. Some actions, such as being reluctant to commit to opinions or answers either orally or in writing, may have helped pupils to avoid negative judgements of their competence. Finally, when a task could no longer be avoided, pupils were observed engaging in attention-seeking behaviours and demanding high levels of support from their teacher.

These observed behaviours can be divided into four categories: delaying tactics, resisting communication, avoiding negative judgements and attention-seeking.

9.3.1 Delaying tactics

Whilst completely off-task behaviour was relatively easy to identify, delaying tactics were subtle and harder to quantify as they manifested as passive resistance rather than overt misbehaviour. These behaviours were often observed at the start of lessons when pupils may have been reluctant to go to their own seats, remove coats and get out books. They were also in evidence at other times, particularly in transitions between activities. For example,

pupils may either not have had the necessary equipment or pretended not to have had it and so introduced the opportunity to leave their seats to collect equipment from the teacher or their friends or they may have operated a 'go-slow' by doing things just a little slower than expected. It was considered that some measure of this might be obtained by looking at the time between the bell indicating the start of the period and the beginning of the lesson proper. However a number of practical factors prevented this, for example, in some lessons pupils arrived late from previous activities, some teachers stopped the tape temporarily while they settled the class and other teachers did not start the tape until the class were in the room. It was also not always clear exactly when the lesson proper began as in some lessons the preamble of reminders about uniform or behaviour overlapped with the introduction of work.

The example below from a middle band history lesson illustrates the kind of delaying tactics that pupils deployed. It covers a five minute span of the lesson in which pupils deflected the teacher's attempts to get them to do a starter activity.

Teacher
Right, OK, we'll use the text book. Yes, Jenny? Right, historically that's not that important is it? Can everyone turn to page 10 and 11 please? Page 10 and 11. Susie, thank you. Shhh, Kevin, page 10 and 11 please. Right, can you look on page ten. At the top there's a photograph and it says there, a Hitler youth camp at Nuremberg, that's a town in Germany, in the summer of 1934. Shhh, note the loud speakers on the tower in the centre of the camp. What I want you to do is to look at that picture and write down as many things as you can that we can learn from that picture. For example, it shows us there are tents so people were camping there. So I am going to give you three minutes to write down as many things as you can that we can learn from the picture on page ten. That's your title please make a start now. Kayleigh?
Kayleigh
I need a new book
Teacher
Right I'll get you one. Make a start please. Right, you don't need to talk to do this. Shhh, you don't need to talk (gives pupil new book). Shhh. Come on. Shhh. Right if people aren't going to work properly you are going to have to stay behind at break. I need you to write down all you can learn from that picture. Come on.
Boy 1
Miss can I borrow a pen please?

Teacher

Right, I don't think I've got any spare pens. I haven't got pens. I'll have to loan you a pencil. Come on, please. Title, date, everything you can learn... shhh. Laura, open your book. Open your book, please. Shhh. Shhh.

John

Miss can I have a new book please?

Teacher

No John, your book is at home. Just work on paper for today and we'll stick it in ok.

Teacher

Shhhh, come on, you are writing down what that picture tells you. So I've already said people are obviously camped there because there are a lot of tents what else can you learn? Come on. Kevin, you haven't even started, now face the front.

Kevin

I'm looking for me pen, miss, I need me book.

Teacher

I've given you paper, your book's not here, you must have left it at home now come on. Shhh. Right we'll talk about it in a minute. You have to say what you can learn from the picture

Girl 1

Miss I don't understand what you've got to do

Teacher

What the picture tells you

Girl 1

It doesn't tell you anything

Teacher

Well, it's not that picture it's the other one. Right, ok, can every one listen and if you haven't got these things you can write them down.   Let's look at the photograph. John, you've got some things written down. What did you find out from the photo? Liam, leave it please.

John

Miss there's umm hundreds of tents

Teacher

Right, hundreds of tents, right, what could we learn from that then if there's hundreds of tents?

Another example came from a middle band maths lesson. The task consisted of measuring the diameter of a circle with a ruler and then dividing the answer by two to get the radius; pupils were allowed to use a calculator to do the division sum. This should have been a straightforward task even for the lowest set in Year 9. However, in this four minute excerpt pupils were observed using a range of delaying tactics; two claimed their rulers were broken and one that he didn't have a calculator. There was other evidence of pupils being slow to engage with the task in the teacher's reminders to three pupils to get on with their work.

Teacher	I want you to put another measurement underneath the diameter. The diameter goes all the way across. "r" anybody know what r stands for?
Boy 1	round?
Boy 2	radius?
Boy 3	round?
Teacher	Correct, Bret, it is the radius of the circle. Ummm. The radius of the circle is the Distance from the centre to the edge so what do we do with the length of the diameter, that goes all the way across, to find the distance from the middle to the edge?
Boy 3	Sir, do...
Teacher	What do we do with that distance to get that distance?
Boy 4	(indistinct)
Teacher	That's right, Eddie, you halve it. So when you've got your diameters, underneath, half of that number, divide that number by two and write down what the radius is, for each of those...
Boy 3	Sir, my ruler's been snapped off at the end, sir
Teacher	That's alright you can still count one two three four with your fingers
Boy 3	But, sir?
Teacher	No need to start at zero you can still count them
Boy 5	Sir, if you had like 5.5 would it be 2.5?
Teacher	It wouldn't be 2.5.
Boy 5	Sir, what could be ...
Teacher	You should have your calculator to use.
Boy 5	Two point ten?
Teacher	You should have your calculator to be able to divide...to use it
Boy 5	Sir, I don't have a calculator
Teacher	Do what you can and then you might be able to use Sophie's. She might lend you...
Boy 1	Sir, I don't get it...
Teacher	(to boy 4)Get on.
Boy 1	Sir, do you just half it?
Teacher	Yes. Is that what it is? (to boy 3) Come on, get each of those down into halves, divide each of those down into halves.(to boy 6) Have you measured that? Have you picked up your ruler and measured how many centimetres that is across, come on.
Boy 6	No, sir, because mine's snapped
Teacher	You can still start at there and count, 1 2 3 and so on
Boy 3	Sir that one's...
Teacher	Ben, your halves... get those down that you've measured with the ruler that should have been done by now
Girl	Sir...
Teacher	...so its 5.4
Girl	Sir...
Boy 7	Sir, is half of 12.3?
Teacher	6.15(to Brian) When are you going to halve that 12 and put the answer down Brian? When are you going to halve that 12 and write the answer down. Get it halved, half 12.
Boy 3	Like that number there?
Teacher	That's right
Boy 3	Half thirteen?
Teacher	If that's what it is, yes. (To Brian) Come on you should have done half of twelve, you know what half of twelve is...
Boy 1	Sir, do you do them for all of them?

In this sample, in addition to deploying delaying tactics pupils also made high demands on the teacher for attention and for reassurance that they were doing the right thing or that their work was correct.

9.3.2 Evidence of attention and support seeking

The example above showed how pupils can make a high level of demand for attention when they were unsure of what they were doing and it also showed that these demands were often tagged with "sir". The prevalence of the use of 'miss' or 'sir' provided a useful indicator of the level of demand for a teacher's attention as pupils are observed to use these terms of address more frequently with particular types of interactions.

'Miss' and 'sir' were frequently used when pupils initiated interactions with their teacher, especially if they were uncertain about a task or response and needed to request help, support or reassurance. Pupils also initiated interactions when they were introducing off-task, work-avoidance elements. The type of activity also affected the rate of use of 'miss' or 'sir'. For example, when a class was engaged in formal discussion activities, such as a review of the outcome of an experiment or task, even though these required verbal interactions with the teacher, rates of 'miss and sir' were relatively low. This may have been because the teacher was initiating and controlling the interactions. However, it may also have been because in this type of situation there was a low level of individual threat; pupils had strategies to avoid responding if they didn't know the answer and teachers tended to move on quickly to someone who could answer in order to maintain the pace of the lesson. In other activities situations arose where pupils were given an individual task to do and where commitment to some kind of action or response

was unavoidable, for example, completing a written task or carrying out an experiment. In this case, a class who had fully understood their task and were confident of their ability to succeed got on with work independently, while another class, who were less confident of their ability to succeed with a challenge, made high demands on the teacher by calling out for help and support. The rate of interactions initiated by pupils could, therefore, be taken as an indicator of the level of confidence that a class had in their ability to complete a particular task. As interjections by pupils tended to be prefixed by 'miss' or 'sir', the rate of 'miss' or 'sir' was considered an indicator of the ability of pupils to deal confidently with their work.

The examples below give an indication of the kinds of interjections that made up these demands. Some of these related to the subject content, often where pupils were seeking reassurance that they had the correct answer; a few (e.g. why did he come in on a donkey?) seemed to be genuine requests for extra information. Others related to domestic issues, such as equipment; while some of these may have been genuine, others may have been work avoidance.

Table 9.2 Examples of Miss/Sir appeals for attention

Request for support & reassurance	Domestic
Miss, I don't understand what you've got to do... what the picture tells you?	Miss, I am writing in my exercise book.
	I've got a pen and a ruler, sir.
Miss, Miss, is it not meant to be Holy Sunday?	Sir, I'm waiting for a ruler.
	Miss, can I borrow a pen please?
Miss, the second one?	Miss, can I have a new book please?
Miss, he is risen, Miss	Sir, are you taking those science books in?
It's a bit loose, isn't it, sir?	**Others**
Miss, is it Palm Sunday?	Yes sir, it was on the video, sir.
Miss, I didn't see Easter Sunday.	Miss, who made up these little sheets?
Sir, how are we going to...?	Nothing, sir.
Oh sir, I've done it wrong!	Miss, why did he come in on a donkey?

Table 9.2 below shows the number of occasions 'miss or sir' interjections were observed during lessons. (These numbers exclude any formal registering of pupils when all pupils respond to their names with miss or sir.) Only four teachers were observed with both the banded and the mixed ability cohorts, so the table below shows the comparisons between these teachers' lessons.

Table 9.3 Numbers of Miss/Sir appeals for attention

	Number of sir/miss		
	2001 Banded cohort		2003 Mixed ability cohort
	top	Middle	Mixed ability
Teacher 1	32*	67	14
Teacher 2	12	71	41**
Teacher 3	9	114	9
Teacher 4	5	72	2

*most of these were from 2 particularly demanding boys
**class working independently for whole lesson writing an experiment report on computer prompting many technical questions

This showed that there were much higher rates of the use of miss and sir as terms of address in middle band groups. Top band and mixed ability groups both had much lower rates of the use of miss and sir.

In every lesson observed (except for the mixed ability physics lesson), there were some periods of time when the class were quiet and not demanding attention, for example, when a teacher was addressing a class directly. This means that demands for attention are not distributed evenly through the hour of the lesson. Hence, during the activities where middle band classes were making high demands for attention, teachers were dealing with two or more individual demands per minute.

9.3.3 Resisting communication

A lot of the behaviour observed in middle band groups was not directly challenging to the teacher. It was what teachers describe as 'low level' disruption that manifested as negative body language and was in effect a kind of background resistance to engage. It may be that middle band pupils experienced the classroom situation as discomforting as they were expected to engage in learning activities while having low confidence in their ability to succeed. Negative body language may have been a response to this discomfort rather than a deliberate attempt to disrupt lessons.

It was apparent from observations that the body language of middle band pupils was different to that of high ability or mixed ability pupils. These differences were particularly noticeable in sections of lessons where the teacher was addressing the class, for example, explaining some aspect of the subject or giving instructions for a task, and before books or worksheets were distributed; in other words, at a point in the lesson where pupils' sole task was attending to the teacher. Figure 9.2 below shows sample snapshots taken from sections of lessons where the teacher was at the front of the room addressing the class. They give an impression of the atmosphere within each class and illustrate typical group body language.

Middle band pupils were observed to display a range of body language that communicated their resistance to the teachers' attempts to communicate with them. For example, they avoided directing their gaze towards the teacher; instead they were observed looking out of the window, looking at other pupils or at objects unrelated to the lesson, for example, labels on bottles, the contents of a pencil case, or a note from another pupil. Their position in their

seats may also have been directed away from the teacher with some pupils sitting slightly sideways or turning away from the teacher or towards another pupil. Pupils might also have been engaged in minor actions unrelated to the lesson, for example, fiddling with wristbands or drumming their fingers on the desk. Middle band pupils were more likely to have their heads resting on their hands or their hands covering their faces in some way.

Figure 9.1 Snapshots of pupil body language

Image redacted due to third party rights or other legal issues
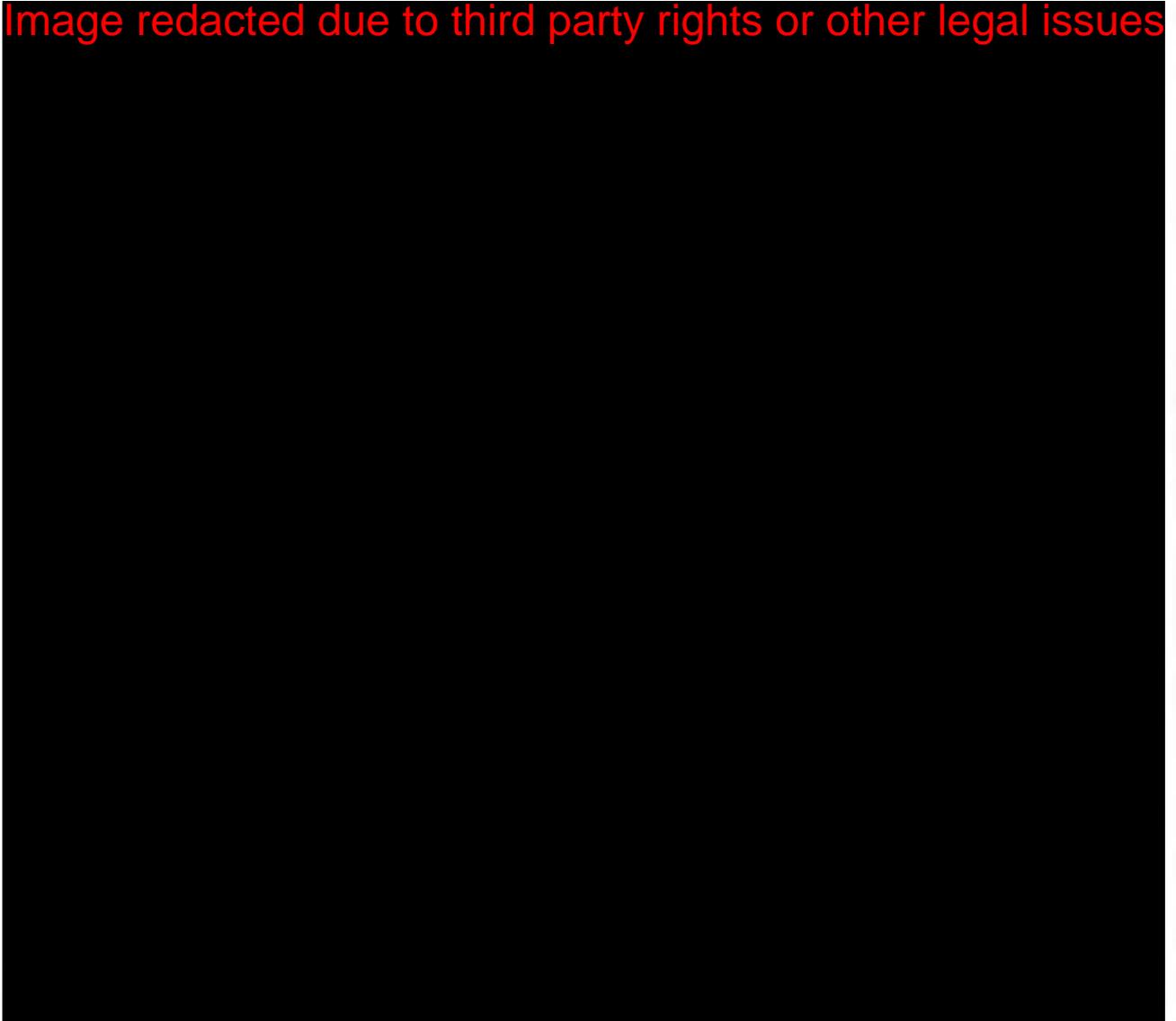
On the other hand, top band and mixed ability groups were more likely to be sitting straight in their seats, looking at the teacher and were more likely to be smiling or responding in other affirming ways.

In order to analyse the body language, the start and end points of appropriate sections of lessons were identified. These were usually between two and three minutes long and consisted of sections where the teacher was addressing the class with information or instructions. From these short sections five still pictures were captured at 15 second intervals. Observations were then recorded of the direction of gaze and the position of pupils in their seats. Table 9.3 below summarises the data from observations of classes in the three subjects which had maintained mixed ability teaching throughout KS3. Other subjects (maths, biology, physics and French) were not included in this analysis as setting in these subjects might have influenced behaviour in both the banded and mixed ability cohort. For example, a lower set in the top band or from the mixed ability cohort might have presented behaviours similar to middle band groups. The three subjects which remained were a small sample, but were more likely to be representative of the differences between banded and mixed ability cohorts.

These data confirmed that, compared to top band and mixed ability classes, middle band pupils were less likely to be looking at their teacher while he or she was talking and were more likely to have their body turned away from the teacher.

Middle band classes presented body language that was likely to impede communication between teacher and pupils.

Table 9.4 Pupil body language

Total Number & % of pupils in 5 samples		Direction of gaze		Position in seat	
		Towards teacher	Not towards teacher	Straight, facing forwards	Twisted, turned away
Geography	Top	33 77%	10 23%	42 98%	1 2%
	Middle	12 36%	21 64%	27 82%	6 18%
	Mixed ability	32 78%	9 22%	38 93%	3 7%
RE	Top	25 71%	10 29%	40 100%	0 0%
	Middle	8 20%	32 80%	22 55%	18 45%
	Mixed ability	25 63%	15 37%	33 85%	6 15%
History	Top	34 85%	6 15%	39 97%	1 3%
	Middle	22 61%	14 39%	35 97%	1 3%
	Mixed ability	38 88%	5 12%	43 100%	0 0%
Totals	Top	92 78%	26 22%	121 98%	2 2%
	Middle	42 39%	67 61%	84 77%	25 23%
	Mixed ability	95 77%	29 23%	114 93%	9 7%

These middle band behaviours might not have been sufficiently serious or disruptive to prompt a teacher to stop what they were doing or interrupt the lesson to reprimand any individual. However, the cumulative effect of the negative body language could well have restricted a teacher's ability to communicate in a natural way. It cannot have been easy to continue to talk to a class who were, in so many ways, signalling their lack of interest in the person who was speaking and in what they had to say. Thus negative body language could effectively close down communication, impede the development of ideas and result in a skeleton speech from the teacher. It may

also have contributed to the feelings expressed by some teachers that middle band classes had a culture of their own from which they were excluded.

In top band and mixed ability classes pupils were more likely to respond to their teachers in ways that encouraged effective communication to develop; this affirming body language would seem likely to result in richer interactions between pupils and teachers.

9.3.4 Avoiding negative judgements

Of all the 'helpless' behaviours that were observed, it was reluctance to commit to opinions or answers that perhaps most clearly illustrated the link between these strategies and learning. Lesson activities which required an oral response to a task provided an opportunity for direct observation of 'reluctance to commit'. However, while around half of all lessons included activities of this type, it was common for teachers to dominate oral feedback sessions, for example, by repeating and expanding (sometimes at length) on the briefest of pupil responses. In this situation the factor which limited pupils' responses was the teacher's behaviour rather than the pupils' willingness to contribute. Hence, observations of oral feedback activities that fell into this pattern did not provide useful evidence relating to 'reluctance to commit'.

The three examples which follow were taken from starter activities in lessons with teachers who spoke only to encourage the development of an answer or to elicit further responses from pupils. These starter activities were straightforward tasks which had low levels of demand in terms of learning challenge and, hence, should be well within the capabilities of pupils in all groups. In the first example, from a history lesson, a middle band class were

asked to use a photo in a text book as a source of evidence about Hitler Youth camps. At the start of the activity the teacher asked them to:

Note the loud speakers on the tower in the centre of the camp... there are tents so people were camping there.

After five minutes of looking at the photo and its caption the class responded by repeating the examples given to them by the teacher at the start and then making only two additional, brief observations between them.

Middle band
Pupil 1: there's umm hundreds of tents
Pupil 2: It's overcrowded
Pupil 3: there's loads of loud speakers
Pupil 4: there's some electricity poles

In the next example, from an RE middle band lesson, middle band pupils were given an odd-one-out starter activity (Christmas, Lent or Easter). The teacher asked named pupils for responses and needed to prompt them for explanations.

Middle band
Pupil 1: lent (after prompting by teacher) cos it last for a long period of time
Pupil 2: lent (could not give reason even after prompting)
Pupil 3: lent (after prompting by teacher) because you get things at Christmas and Easter

All those asked gave the same answer as the first pupil although any answer could have been justified as the odd-one-out.

When the same activity was given to a top band class, pupils gave a range of answers and explanations. Three pupils were asked directly by the teacher for responses, the other two volunteered answers. The teacher did not need to prompt for explanations.

Top band
Pupil 1: Christmas - lent and Easter are the same time of year
Pupil 2: Lent - because you have to give up something
Pupil 3: Because lent is preparation for Easter
Pupil 4: Christmas and Easter are one day
Pupil 5: Christmas - Jesus is a child but in the other ones he's an adult

This top band group was characterised by a willingness of pupils to volunteer answers and to develop ideas so that these activities were not an end in themselves but rather they provided a basis for wider discussions. The middle band groups, however, were reluctant to commit to answers or to propose explanations and their lessons moved on, without further discussion, once the task had superficially been completed.

9.4 Summary

Pupils from the 2001 banded cohort were more likely to use ideas about intelligence in their explanations of their feelings about their class or to justify their beliefs about the banding system. At the end of Year 6 their views were evenly divided between the alternative views of intelligence. However, by the end of Year 7 they showed a higher level of support for the entity theory of intelligence than the incremental theory. Pupils from the 2003 mixed ability cohorts were less likely to make reference to intelligence but where they did their responses were evenly divided between the two views of intelligence.

Video observations of lessons provided evidence about the interactions of pupils with teachers and learning activities. Allowing free choice by teachers of the style and content of their lessons did give rise to limitations on the quantity of data. However, despite this, evidence emerged which supported the proposition that there were differences in behaviours between top and middle band groups and that mixed ability groups responded in similar ways to top band groups.

Top band and mixed ability classes were more willing to volunteer answers and develop ideas and their body language communicated a higher level of engagement with activities. These were pupils who had not adopted stigmatised identities, were more receptive to learning and, hence, more likely to benefit from the activities taking place.

Compared to top band and mixed ability classes, middle band classes were more demanding of teachers' attention when faced with work that presented individual challenge, were more likely to avoid committing to answers and were also more likely to exhibit negative body language. These behaviours were interpreted as signs of the helpless behaviour patterns and avoidance of challenge described by Dweck (1986). The adoption of stigmatised identities by middle band pupils affected the way that they interacted in the classroom in ways that seem likely to restrict the benefit that might be gained from the learning activities taking place. Furthermore, their responses were also likely to affect the approach that teachers adopted with these classes in future lessons.

Chapter Ten will consider the impact of that ability grouping has on teachers.

10.1 Introduction

This chapter will first consider evidence from interviews with teachers and from video observations of their lessons. This relates to their perceptions of top and middle band pupils, the behaviours they expect from them and their relationship with their classes. It will also consider video evidence suggestive of the levels of anxiety experienced by teachers with different classes and will go on to look at teachers' perceptions of pupil needs in terms of work and at the way they communicate expectations.

Chapter 8 has presented findings that suggest that pupils in middle band classes were likely to adopt helpless behaviour patterns and it was considered that this would in itself present challenges for teachers. However, what is also being considered here is the possibility that teachers might themselves have engaged in stereotyping and that this might exacerbate the situation. Therefore, the evidence presented here is considered in the light of the ideas about stereotyping, prejudice and discrimination which were discussed in Chapter 4.

10.2 Stereotypes

Stereotyping is associated with the process of categorising and identifying group characteristics. Chapter Seven described evidence that a process of stereotyping took place within and between groups of pupils. A similar process of adopting stereotypical views of different ability groups was also seen to operate amongst teachers.

10.2.1 Teachers' perceptions of pupils in middle and top band classes

Table 10.1 below lists the words used by teachers during interviews to describe pupils in the two bands; these can be considered as descriptions of teachers' stereotypical views of the characteristics of pupils in each band.

Table 10.1 Teachers' perceptions of pupil characteristics

	Middle band	Top band
Positive	Passive OK Unusually well-motivated	Nice Keen Responsive Compliant Lots of opinions & ideas Very good Lovely Wonderful Very receptive Pleasure to teach A joy to teach Very perceptive Some exceptionally bright Always want to know more High order discussions Quiet Very capable
Negative	*Gobby girls Limited ability Most challenging group ever Not highly motivated Fairly disruptive Childishness rather than malice Silly Disruptive Naughty Don't concentrate Won't work	Scallywags (5 boys) Disruptive (4 boys) Some boys not motivated A couple are a bit negative

*Gobby = excessively talkative

There were far more positive comments about top band pupils and far more negative comments about middle band pupils. The negative comments about the top band were always qualified by attaching them to a particular group within the class (e.g. "four boys") which seemed to imply that teachers regarded this as untypical behaviour. This may be because it did not fit with their positive stereotype of top band behaviour. The positive comments about middle band pupils were either barely positive at all (e.g. passive or OK) or qualified as being atypical. Some of the negative middle band comments used

language, e.g. silly and naughty, that might commonly be used about a younger age group; this suggested a paternalistic attitude towards them.

10.2.2 Teachers' perceptions of behaviour in top and middle band classes

Teachers provided long, but probably not exhaustive, lists of inappropriate behaviours in the middle band classes along with occasional comments about top band classes.

Table 10.2 Teachers' perception of pupil behaviours

Number of comments	Middle band behaviours	Top band behaviours
4	Lacking equipment e.g. pens, pencils, books Calling each other names Distracting/aggravating each other Out of seat, e.g. pretending to fetch pens Don't listen to instructions Talking	
3	Throwing things Naughty/silly behaviour/low level disruption	
2	Pinching each others belongings	Not listening
1	Shouting out Fiddling under desks Noise making Note writing Drawing insulting pictures Messing with water bottles	Lack of equipment Chatty Questioning Talking Boys talk across room Noisy

A lot of the behaviours in the middle band related to interactions between pupils, such as name calling or note writing. It seems likely that these behaviours contributed to teachers' perceptions that middle band classes had a separate culture and that there were things going on in the room that the teacher was not part of and was excluded from.

In top band classes, even when poor behaviour was identified, teachers seemed to downplay these issues, for example, by describing talking as being 'chatty', which sounds quite friendly, or 'questioning' which even made it sound positive and 'boys talk across room' was probably equivalent to 'shouting out' in middle

band. Again, this may be because 'talking' and 'shouting out' conflict with teachers' stereotype of top band behaviour.

Teachers were asked whether they felt that the class they had been observed with was typical of the band as a whole. In the middle band three classes were described as better than average and three as worse. For the top band two teachers said their classes were better than average and four said they were about average. The four top band classes described as average contained members of a clique of boys whose behaviour was observed as challenging and disruptive.

Evidence that some of these teachers did experience difficulties with these classes emerged from discussions prompted by the rating scale given below which encourage teachers to categorise pupils within their groups.

Figure 10.1 Prompt for categorising classroom attitudes

HIGHLY MOTIVATED	COMPLIANT AND/OR CO-OPERATIVE	PASSIVE RESISTANCE	BATTLE ZONE
LEARNING IS A SHARED ENTERPRISE	GET ON WITH WHAT HAS TO BE DONE	GO SLOW AND USE WORK AVOIDANCE STRATEGIES	YOU MAKE ME WORK! YOU MAKE ME BEHAVE!

One teacher acknowledged that her top band group could be noisy and included four disruptive boys who she placed in the "battle zone"; another said that one boy was "potentially disruptive" and that some pupils were "on the verge of middle band". Of the six teachers interviewed four identified groups of up to eight boys who presented problems in terms of behaviour in the top band groups. Despite this, these teachers had been unwilling to describe their top

band classes as below average and hence explicitly acknowledge that there were difficulties associated with these groups.

10.3 Prejudice

These reports suggested that teachers did hold stereotypical views of pupils' characteristics and behaviours and that they seemed to accentuate differences between groups. This raises the possibility that teachers might also have different feelings towards top and middle band groups, and, hence, might be considered to be prejudiced with respect to these groups. Evidence relating to the feelings of teachers towards different groups emerged from discussions about the relationships that they had with their classes and from their interaction with the videoing process.

10.3.1 Teachers' relationships with middle and top band classes

Teachers expressed feelings that middle band groups were difficult to connect with. Middle band groups were perceived as having their own culture and maintaining a separateness from expected classroom activities. Teachers reported:

- No focus on what you are teaching
- I feel like a complete irrelevance
- They have their own culture and what we do doesn't impinge

Commenting on middle band classes, one teacher claimed that although he "didn't dread them" and that he could relax and joke with them that this was "tempered by fear of silly disruptions". One described herself as being in a "heightened state of alert" and another said that "you need to keep on top of them all the time, keep them pinned down".

However, despite all the negative comments about middle band pupils and classes, some teachers stated that they liked these pupils as individuals or as a group. One teacher even said that she "loved" her middle band group.

Conversely some teachers made quite negative comments about their top band classes:

- Indifferent - haven't really bonded with them
- Too many of them - too mixed
- Not necessarily motivated - a bit talkative
- Noisy, talkative, don't always listen, a couple are a bit negative

The relationship between teachers and classes of different abilities were not straightforward as the teachers seemed to make statements which conflicted with their own stereotypical views. It may be that stereotypical views of group identity are sufficiently powerful to persist despite personal experience and evidence to the contrary. This kind of effect has already been described with respect to pupils' views of the differences between bands (Chapter 7).

10.3.2 How do teachers respond to different ability groups?

Video observations provided direct evidence of teachers' responses to different ability groups. A video camera is a potentially disruptive influence in any classroom and teachers' responses to the videoing process gave an indication of the level of anxiety they felt about their ability to maintain good discipline.

Teachers had control of the videoing process once it was set up and they were therefore able to pause or stop the recording completely at any time. For the banded cohort, seven teachers had pairs of lessons recorded. Of these seven, recordings made of four middle band classes were stopped at some point during the lesson.

When questioned about stopping middle band recordings, one teacher said he had accidentally knocked the on-off switch (which was highly unlikely given the position of the camera and the nature of the switch) and one stopped the recording because she felt the presence of the camera was causing disruption and then recorded the following lesson. The other two teachers stopped the recordings because of incidents in the lesson, although it was not clear whether it was the pupils' behaviour or their own response to the pupils' behaviour that was deemed unsuitable for recording.

In addition to teachers who actually stopped the recordings there were also four teachers who engaged the video as an agent of control over the class. Here, although the teachers had been asked to explain to the class that the video would be used for research purposes only, some teachers used the video as a threat saying that pupils would not know who would see the video containing the evidence of their bad behaviour.

The first example of this was from the start of the middle band French lesson, the teacher had taken just over a minute to get the class to this point where they were standing in their places and had responded to her initial greeting of "Bonjour". During this 30 second interaction the teacher made the decision to stop the recording.

Bonjour, assez vous s'il vous plait. Right, first of all... (boy makes face at camera) Right, you know, are you silly or what? That's a proof of your misbehaviour. (boy continues staring at camera) Right, you see that's silly. Sean, you're gonna be... Sean, Sean, (snaps fingers to get boy's attention) you're gonna actually be silly in front of the camera. That is a proof of how silly you can be. (class laugh) This is ... you don't know who's going to watch that... you don't know how much trouble you're going to be in... (teacher turns off camera)

The second example was from the middle band geography lesson. In this example it had already taken the teacher 3 minutes to get the class standing in their places and quiet enough for him to address them.

I am waiting. I am still waiting. You've already made a good impression on the video I'm sure. The video camera is running and it is recording you. I don't know what it is about. I have been asked if I would allow you to be videoed. This is videoing the class rather than videoing me. (indistinct comment, class laugh) You (addresses boy who made comment), see me at the end. Excuse me. Right, you're creating a wonderful impression on this. Put it down (addresses girl playing with water bottle) and away. And bear in mind it records sound, and when (name of researcher) makes use of this video I don't know who she's going to show it to, I don't know which members of staff will see it but I would imagine in your own interests you should behave in a way that's not going to show on the video as being something that people aren't going to like. Have a little bit of common sense. Good morning everyone.

The third example was from a middle band history lesson which was stopped about ten minutes before the end of the lesson. Pupils were doing work which included references to maternity homes in Hitler's Germany as well as discussions of preferred physical characteristics. The incident spanned about two minutes and included a specific threat to show the video to the head of year. The pupils' failure to respond to the teacher's attempts to restore order after the excitement of saying rude words seemed to be the trigger to turn off the camera.

Boy 1
Miss?
Teacher
Yes
Boy 1 (genuinely questioning tone)
Would they need big boobs as well so they can make more milk?
Teacher
We're not going to go into that specific detail like that?
Girl (slightly indignant)
Well, you cannot learn if you don't ask
Boy 2
Miss boobs get bigger when you're pregnant
Boy 3
You what?
Boy 2
Boobs get bigger when you're pregnant
Boy 4 (joining in and apparently just saying the words for fun)

Boobs boobies
Teacher
Can you save this for biology thank you?
Boy 2
Miss could you get a boob transplant?
Teacher (no one visible out of seat)
Sit down please
Boy 3 (chants letters)
T I T T I E S
Teacher
Stop it. That's not very nice
Boy 3 (appealing to class)
I only went T I T T I E what does that spell?
Teacher
I think Mr (head of year) will be seeing this video. I think it's disgusting.
Boy 4 (clearly heard amid general noise)
Bosom bosom
Teacher
Right everybody listen carefully now **(no response -noise continues)**
Pens down **(again no response -noise continues)**
Right OK
(Tape stopped)

Only one of the middle band lessons continued without either the tape being stopped or threats being made.

Table 10.3 showing teachers' responses to video process

	Middle band lessons	Top band lessons	Mixed ability lessons
Total number of lessons recorded	7	7	7
Number where recording stopped by teacher	4	0	0
Number where teacher engages video in class management	5	0	1
Number where recording continued uninterrupted	0	7	6

In the top band and mixed ability classes, pupils were observed responding to the camera in similar ways to middle band pupils, for example, acting up to the camera by waving or making faces, but teachers ignored these behaviours. Some pupils asked about the camera but such questions were ignored, dismissed as being irrelevant to the task in hand or answered in a factual way. However, despite similar behaviours being observed, none of the top band or mixed ability recordings was stopped and only one teacher was observed

engaging the camera as an agent of control in a mixed ability class and none in the top band.

These observations suggested that teachers were far more anxious when dealing with middle band classes and less confident of their ability to maintain good order than they were with either the top band or the mixed ability classes.

10.4 Discrimination

The final stage to be considered was whether the stereotypical views held by teachers and the prejudice they felt towards different groups resulted in some form of subtle discrimination in the form of actions which disadvantaged one group or the other. In these examples consideration is given to whether teachers are behaving differently and whether these differences are proportionate and reasonable in the light of the differences in behaviours that exist in different ability groups.

10.4.1 Teachers' perceptions of the learning needs of middle and top band classes

The table below summarises the comments made by teachers about their approaches to teaching and learning in different bands.

When teachers talked about the approaches they took with different bands, their thinking about top band classes was characterised by an expectation that these classes were capable of doing anything asked of them. However, in lesson observations only two subjects, French and history, included more challenging learning tasks which involved group research projects carried out over a number of lessons; most top band activities were traditional tasks such

as carrying out and writing up experiments in science or answering questions from textbooks.

Table 10.4 Teachers' perceptions of learning needs

	Middle	Top
Classwork activities	Pedantic Lead in small steps Cycle of short explanation then task Use fewer simplified sources Key words Cloze passages Fewer intuitive leaps of thought Nothing that involves thought Lots of structured work Less varied activities Try not to deprive of group work (do it in the morning not the afternoon) Struggle to get a response Individual, paper-based activities Won't even watch videos Cannot do things Don't bother trying Don't relate learning to everyday life Think twice about doing practical work Wouldn't cope with upper band work Have to do simplified version	Debates Role play Different strategies Discussions High order discussions Can use any strategy
Homework	Don't have discipline to do it Too high profile Battling Constant battle Damages relationships	Excellent

Middle band groups were typified as incapable of doing anything but the simplest tasks. Teachers seemed to have identified issues which corresponded to the characteristics of 'helplessness', i.e. lack of persistence and avoidance of challenge, and to have responded by reducing the level of challenge in tasks and breaking them down into very small steps. Teachers seemed to be aware that they were limiting the experience of middle band pupils and did seem to go on trying to engage pupils with learning even though they might be "frustrated with their immaturity and inability to work". Teachers attributed their decisions about which activities to use to both behaviour and ability. Observations of middle band lessons indicated that like the top band they were

mostly engaged with traditional tasks although there was some evidence of dumbing down. For example, the maths teacher had his middle band class spend most of the lesson drawing around circular objects on squared paper and then counting the squares to work out area which was an activity more suited to primary pupils than Year 9 pupils in a secondary school.

Several teachers mentioned homework as being a source of conflict with middle band pupils. If middle band pupils are considered as 'helpless' learners then homework presents particular problems as it requires a pupil to persist with independent work and it produces evidence that can be judged.

10.4.2 Classroom interactions: middle and top band

Teachers were asked to select lessons to be videoed which addressed the same subject matter and were as far as possible, allowing for differentiation, the same lesson. One thing that emerged was that, in addition to different tasks being set in some lessons, there were clear differences in classroom interactions. As a result even where identical tasks were given to both a middle and a top band class the outcomes could be quite different.

These differences were apparent in the way that lesson objectives were presented and activities were introduced and also in the amount of support teachers provided for learning. They can be categorised as either promoting performance goals or learning goals. Performance goals are seen as being promoted by descriptions of measurable outcomes in terms of quantity of work and task completion, and emphasis on domestic issues such as presentation of work rather than the content. Learning goals are seen as being promoted by descriptions that develop the context of learning and encourage pupils to make links, develop skills and enhance competence and understanding.

The capacity of middle bands groups to resist communication was described in Chapter 9; these behaviours were particularly likely to have an impact on classroom interactions. Hence, the following examples present situations where teacher responses were likely to be a mixture of pragmatic responses to pupil behaviours mixed with subtle discriminatory behaviours of their own.

10.4.2.1 Communicating goals through classroom practice: lesson objectives

Most teachers included near the start of each lesson a statement of the objectives of that lesson. However, there was considerable variation in the way that lesson objectives were presented and some were so entwined with the recap of the previous lesson and the development of the work for the current lesson that it was impossible to separate them out. In lessons where the objectives were clearly stated there were observable differences between the ways that they were presented to top and middle band groups. For the middle band classes the teachers gave straightforward statements of the lesson objectives some of which were direct readings of what pupils had to copy down from the board. For the top band, however, teachers tended to include greater detail or provide context for the subject matter as well discussing approaches to learning.

One of the issues identified by teachers as being a problem with middle band classes was their inability to relate learning to everyday life. Paradoxically, in these lesson objectives we find examples of teachers making links between learning and everyday life explicit for the top band but not for the middle band.

Below are examples from three teachers who included clearly stated objectives in both their middle and top band lessons.

Middle Band learning objectives

RE

The learning objective is to know in outline ... what happened in the final week of Jesus' life and to consider our personal responses to it.

History

This is what we are going to do today. We are going to spend some time today looking at life in Nazi Germany for young people and women.

Biology

Right what we are going to do today – we are going to carry out the investigation we have planned and get some results that we can use next lesson to do an analysis.

Top Band learning objectives

RE

[Today we are] looking in more detail at the events of Jesus' arrest, trial and crucifixion ... thinking about the events leading up to Easter, thinking about Holy Week and what we are going to look at this lesson is to make sure you know in detail about Jesus' arrest, trial and crucifixion by looking at St Mark's gospel ... an overall view of what happened in the final week of Jesus' life but also to link it to how we celebrate it now, to how Christians celebrate that week leading up to Easter in the present time.

History

Ok. The aim of today's lesson and the next couple of lessons is to find out what kind of place Nazi Germany was in the years Hitler was in power. From 1937 to 1945 he had total control over many aspects of life [10 aspects listed] and that's what we are going to be looking at today. What we are going to do is called a 'market place' and this is how it works...

Biology

Right, today's learning objective - we are going to continue to carry out our investigation – to investigate the effect of enzymes. By the end of the lesson you should have obtained a good set of results that you can use for your analysis

The middle band objectives were noticeably shorter and made no reference to how learning would take place. The biology teacher even managed to avoid making reference to the subject of the pupils' investigation not only during the objective but also during the lengthy explanation of the task which followed this.

The top band objectives were generally more detailed and conveyed higher expectations of competence and learning. The biology teacher gave the subject of the investigation and said that she expected the top band group to get "a good set of results", whereas the middle band group were only expected to get "some results". The RE teacher described the key events that pupils would be learning about as well as introducing expectations of learning "in detail", using references and linking learning to contemporary life. The history teacher also provided information alongside the objective and communicated high expectations of the group's ability through her explanation of how the activities in the "market place" would help pupils to learn and through her description of it as an accelerated learning technique.

The top band objectives communicated that these pupils would be undertaking tasks which would enable them to increase their competence as learners and hence could be considered to be promoting a learning goal orientation. By contrast the middle band objectives could be considered to be promoting a performance goal orientation as they simply set out the jobs that needed doing and made no reference to developing skills.

10.4.2.2 Communicating goals through classroom practice: developing activities

The lesson objectives described above are broadly the same for each lesson but communicate different messages. A similar situation was found in lessons where the same activity was used with both the middle and top band classes but in one it provided a basis for promoting learning while in the other completion of the task was the main focus. An example of this was found in the RE lesson where the identical starter odd-one-out activity resulted in quite

different outcomes. Another example was found in the biology lesson where, although the classes were at the same stage in a practical investigation the actual tasks set, and the way they were introduced, differed.

RE odd one out activity

The RE activity asked pupils to decide which was the odd-one-out from Christmas, Easter or Lent and why. In the top band lesson the teacher gave pupils time to consider their responses, encouraged them to discuss their ideas with each other and emphasised the importance of the justification of their choice. By contrast the middle band pupils were told to "think about it" but then just ten seconds later were told to decide which word was the odd one out and why. All of the top band pupils responded with complete answers including their reasons and their answers were developed by the teacher who introduced a range of vocabulary and ideas (epiphany, Pentecost, liturgical, accurate, thoughtful preparation, penance, joyful celebrations, period of preparation, different aspect of the church's year). The middle band when pushed did give a choice of odd-one-out, although all those asked copied the first pupil's response of "lent" , and only two pupils attempted to give a reason even when prompted. The only additional words introduced by the teacher were festivals and celebration.

Biology introduction to investigation

When the biology teacher introduced the investigation activity to her top band group she began by giving an immediate boost to their confidence:

- Right you've got a good idea of what you are doing now. There shouldn't be any problems. You should know what you are doing.

However, following this assertion that pupils already knew what they were doing, the teacher talked about the investigation and provided sufficient practical details that she effectively ensured that all pupils would know what to do by the time she had finished talking even if they had forgotten everything from the previous lesson. She also included discussion of theoretical aspects such as heat transfer and advice for managing their practical work effectively, thereby making links with other subject areas and making explicit the development of practical skills.

For the middle band the teacher began by down playing their efforts in the previous lesson and expressing limited expectations of their current level of competence:

- You did have a little go at the investigation last lesson right so you have some idea of what to do.

Following this the focus of the teacher talk was on the mechanics of writing the method for the investigation with emphasis being put on writing it in a step by step format (something which I feel Year 9 pupils were quite capable of understanding without detailed explanation). There were eight references to this including a comparison with writing continuous prose in English and recommending the use of numbered bullet points. By the time the teacher had finished talking, the way to write up the method should have been clear to all pupils. However, the limited amount of discussion of the nature of the investigation meant that work quickly faltered and the teacher had to rescue the situation by describing the whole investigation method whilst pupils were writing.

These examples illustrate the way that it is possible for teachers to take the same activity and use it with top band pupils to encourage and develop their learning while in the middle band lessons are more focussed on task completion. In top band classes the task provides a context for learning to take place whereas for middle band the task itself seems to be paramount.

10.4.2.3 Communicating goals through classroom practice: support from teachers

One thing that was apparent in the biology activity described above was that the teacher gave far more support to the top band pupils than she did to the middle band. So while top band pupils were provided with practical details of the investigation, the middle band were expected to remember all the necessary information from the previous lesson. This is contrary to what might be expected, however a similar pattern of teachers providing less support for learning with middle band groups than they do for top band groups was seen in other lessons, for example, the history and RE lessons.

In the second activity in the RE lessons, when the middle band struggled the teacher seemed to take this as resistance to engaging with the task whereas when the top band did not immediately grasp the task the same teacher supported their learning by going through the work in detail. The history lessons also provided evidence of different levels of support; in these lessons although the subject matter was the same the activities that pupils were given were not. Here when the middle band struggled with their activity the teacher resorted to the strategy of repeating the instructions for the task, meanwhile the teacher spent considerable time explaining and setting up the market place activity for the top band class.

RE days of Holy Week activity

The second RE activity consisted of a worksheet which required pupils to order the days of Holy Week and match events to the days. As with their biology lesson, the top band lesson began with a confidence booster, telling pupils that they were capable of doing this activity and that they already had knowledge of the subject.

- We'll do this very quick activity. You should know all this information already. It's just revision - just looking at stuff again, using knowledge you've already got.

Before pupils started working on the activity the teacher had already told them that the week runs from Sunday to Sunday and elicited the fact that the final day is Easter Sunday. She had also offered them a choice of strategies for tackling the task:

- You can mark them on the sheet first if you want before you write them into your exercise book.
- You can number them.
- You can join them up on the sheet before you complete the chart in your exercise book.
- If you are not sure just have a guess, see if you can work it out from what you know already.
- If you're absolutely certain do them straight into your exercise book.

Despite all this pre-task support the teacher decided after only two minutes that the class was struggling and launched a rescue plan. However, the reason for needing a rescue was described as "forgetting", which is a temporary, remediable situation.

- Right, we'll do this together as some people seem to have forgotten stuff.

The rescue consisted of the teacher leading the class through the events of Holy week in chronological order, eliciting responses from them and expanding their answers beyond the content of the worksheet to include, for example, the

derivation from Latin of Maundy and the symbolism of arriving in Jerusalem on a donkey.

In the middle band the class were introduced to the task and by the time they began the teacher had established that the week runs from Sunday to Sunday and had elicited the facts that it started with Palm Sunday and ended with Easter Sunday. There were references to pupils' prior knowledge but these were not in the introduction to the lesson; they occurred around three minutes into the activity when it became apparent that the class were not engaging with the task and seemed to be entreaties to start work.

- ...if you know your days of the week which I am sure you all do, you can work out the order of the other ones because you know which order the days of the week actually happen in.
- You decide from what you already know and you do already know lots of this stuff what you think happened in Jesus' life on Good Friday

The instructions were repeated at least five times during the activity and the class were directed to follow a set procedure. The small number of pupils who were working directly in their books were told to stop and do the work on the sheet first.

- Alright, on the sheet, little lines to join up what you think happened on each of the days; then we'll go through it and put it in your exercise book. Do it on the sheet first.

Four minutes after the start of the activity the teacher announced the rescue plan and after another minute began to put it into action. The middle band needed rescuing because:

- ...some people are a little bit confused about it
- ...for those people who are a little bit stuck

Whereas the top band had merely forgotten a few facts, the use of language like "stuck" and "confused" suggests an inability to process the information. The teacher went through the sheet, not in chronological order which would have made sense of the events, but in the 'muddled' order of days on the worksheet and without expanding on the information on the sheet. Instead there were repetitions of the content of the worksheet and eventually the answers were written on the board. This final act guaranteed superficial completion of the task.

History

Middle band: Life in Nazi Germany activity

A similar situation was found in the middle band history lesson where pupils were required to analyse an image for evidence of what life was like for young people in Nazi Germany. Before the start of the activity pupils were asked to look at a picture in their text book and were given very brief examples of what they had to do: it was pointed out that there were tents in the picture so people must have been camping.

...what I want you to do is to look at that picture and write down as many things as you can that we can learn from that picture

During the five minutes that pupils were working on this task, the teacher repeated the instructions six times and also repeated the original example. Other interactions were of a domestic nature, for example, lost books and pens, rather than to do with the content of the task. At the end of the activity pupils' answers were collected on the board for others to copy; again this ensured completion of the task.

Top band: Life in Nazi Germany activity

By contrast, the same teacher with the top band uses the 'market place' activity where groups of pupils research one topic and record their findings on a poster using images and a maximum of 15 words, then exchange information and produce a concept map with links between different aspects of the topic. In the introduction to this activity the teacher commented that:

- It's Friday last lesson and obviously there are very few groups that anyone would attempt this with but because you are so well behaved that's why I'm doing it.

This was likely to make pupils feel that they are an exceptionally good class. Although the teacher made it clear that she had control by allocating pupils to groups and topics, she also explained how the activities would benefit and develop pupils' learning.

- You need to get as much information as you can onto the sugar paper using only 15 words so you have to think carefully about showing diagrams and the rationale behind that is that students remember diagrams much more easily than lots of words.
- You know what you are doing; read it through first and then when you've got all the information in your head you can then put it down
- You are going to try to make as many connections as you can

She went beyond this when she described how she was sharing something that she had learnt personally with them and in doing this provided an adult role model of a 'learner'.

- It's an accelerated learning technique that I had training on and I have found it very, very helpful. So hopefully you will today.

The evidence from these observations of middle and top band classes suggested that classroom practices could promote either performance or learning goals through the way that tasks were introduced, managed and judged. It also

suggested that for the middle band there was a much stronger emphasis on performance goals, often right from the start of lessons, whereas for the top band there was a greater emphasis on learning, at least in the early stages of lessons. Classroom practices effectively imposed a goal orientation on pupils regardless of the type of goal orientation they might be expected to adopt as a result of their view of theory of intelligence.

The observations also suggested that teachers communicated with top band pupils in ways that were likely to boost their confidence and were more likely to provide support for learning and to put classroom learning into context.

10.4.3 Classroom interactions: mixed ability classes

Seven mixed ability lessons were observed, four of which were with teachers who were also observed with top and middle band classes. Although in all cases the subject of the lessons was different, the style of presentation still provided evidence to enable comparisons to be made between mixed ability and banded classes. There were fewer suitable examples available to show the type of interactions between teachers and pupils. This was because more of the activities in the mixed ability classes involved individual work, for example working on computer to write up an experiment report, and there were also fewer examples of the teacher interacting with the whole group when support was needed. For example, whereas there are examples in both top and middle band classes of whole class 'rescues' when pupils run into difficulties, with the mixed ability groups help seemed to be offered on a more individual level.

The presentation of lesson objectives to mixed ability classes was similar to top band classes as, in addition to outlining the lesson content, teachers also talked to the pupils about learning processes. For example, the geography teacher

talked about 'how our thinking can be helped' and the history teacher explained to pupils that they would not only be watching a video but also evaluating its usefulness as a source of information. The RE objective was an example of a teacher including confidence boosting statements telling pupils that they have already developed understanding and should be able to cope with the assessment.

Mixed ability lesson objectives
Geography
In today's lesson we are going to appreciate how our thinking can be helped by drawing pictures and we are going to understand how global warming can affect Antarctica and other places too

History
For some of the lesson we are going to be watching a video but it's not just, 'oh let's sit down and get the popcorn out and watch the video', we are going to look at what we can learn from a film about history and you are going to record your findings on a piece of paper and we are going to think about how useful a film like that actually is.

RE
What we are going to do this lesson is we are going to round off the work you have been doing is the parable of the sheep and the goats... to make sure you understand it we are going to do a few tasks and then you are going to do some questions... assessment questions which are very straightforward given the amount of work that you have done on it ... and the understanding that you've developed from the lessons you've already had on this... the posters, the questions, the writing, the talking

Mixed ability classes were also observed to be similar to top band classes in respect of the way that activities are developed and in terms of the positive messages communicated to pupils.

The French teacher began his lesson by praising the overall achievement of the class.

Now then, one other thing before we start, ermm, today I will be sitting down with my mark book and I'll be going... and I'll be putting down on a piece of official paper your level for

listening, speaking, reading and writing for your final levels. So I have to put down your highest level in listening, speaking, reading and writing and I will let you know what that is when I've done it and it will be your official end of KS3 level.

I know for a fact that they are well above average which I am really pleased about, right, really pleased because you've got them based on your work, right, and your willingness to have a go and do the best you can and as I've said you have tried to be above average and I have got to say that virtually without exception the class has performed above the average that is expected so well done.

The history teacher gave her Year 9 class a GCSE question to work on and assured them that they had the skills to be able to do this work even though it was designed for pupils two years their senior.

Teacher
Right ok, right, can we please look at source s, source s, on the top of page 13. Right, err, this is the exam paper that Jasmine's sister sat only last week. Jasmine, could you read the information at the top of source s?

Jasmine
indistinct reading of instructions

Teacher
Right, now I've been to the Imperial War museum a few times and it's amazing and it has real film footage, real weapons etc. But they've constructed how a street might look after the blitz. Does anyone know what the blitz actually was? the blitz... err, Anthony?

Anthony
When bombs hit London.

Teacher
Well done. It was when London was bombed, night after night and it was very hard for the people of London. What... When you go in there you can go into a pretend air raid shelter which was set up to protect people and you can sit on a bench and obviously they're able to simulate an air raid and the bench shakes and you can hear bombs and noise etc.

OK so, they're starting to use things like this in your exam papers and I'd like us to have a look at an exam question which I know you'll be able to answer. Could we please look at question c, question c.

Earlier on in the year we did some work on how useful..., we did it with world war 1, and we are going to follow this theme because it is all very well looking at these exciting sources but... how useful are they to us? Are they worth bothering with?

Question c says how useful is source s for two students studying the effects of the blitz during the second world war? Well what are you? You are students studying the effects of the war.

With a question like this, how useful..., you need to look at the content of the source and to look at the picture and then does that give people a lot of information? And you also need to look at where the source comes from? So you need to think about the museum. Why they have made this source? What's the purpose of doing this? Are they going to do something accurate or not?

As well as raising the aspirations of pupils by giving them advanced work, this teacher also identifies members of the class as "students" and communicates the idea that the topic is worth studying by demonstrating personal interest. These examples suggest that, as with the top band classes, teachers communicate with mixed ability pupils in ways that were likely to boost their confidence and promote learning.

10.5 Summary

Teachers' perceptions and behaviours toward lower and middle ability groups were considered to be a mixture of pragmatic responses and subtle forms of discrimination brought about through the processes of stereotyping and prejudice.

The ability grouped system impacted on teachers in two ways.

Firstly, as members of the social community of the school, teachers were drawn into group stereotyping processes and shared in the stereotypes held by pupils. They perceived middle band pupils to be limited in their capabilities, to have poor behaviour and to need carefully structured work that was limited in the degree of challenge it presented. On the other hand they perceived top band pupils to be highly motivated, well-behaved and capable of dealing with any learning challenge.   There was evidence that these stereotypes influenced pedagogy and interactions with pupils and that they were strongly held.   The

strength of teachers' beliefs was apparent when they defended and accentuated stereotypes of groups despite their own contradictory experience. For example, poorly behaved pupils in top band groups were categorised as atypical and minor misdemeanours in middle band groups were exaggerated.

Secondly, these teachers had to work with groups whose identities, behaviours and approaches to learning had been shaped by the process of banding. For middle and lower band groups this meant they had to deal with groups who were more likely to have adopted 'helpless' learning behaviours and were more likely to present challenging behaviour and attitudes in class. Teachers' were observed to display higher degrees of anxiety when dealing with middle band classes. They presented work to middle band classes in a way that focussed on task completion and emphasised performance goals. By contrast teachers presented work to top band groups in a manner that promoted learning goals and encouraged a mastery orientation. There was also some evidence that there was greater support for learning in top band groups compared to middle band groups as teachers seemed to perceive middle band difficulties as behavioural challenges rather than learning needs.

Teacher responses to mixed ability classes were similar to their responses to top band classes; their levels of anxiety seemed to be low and the presentation of work focused on learning.

Chapter 11   Pupil Attainment

11.1 Introduction

The final chapter of findings considers the effect of the banding and mixed ability systems on pupils' progress through secondary school by looking at a range of performance indicators: KS2 SATs levels, CATs scores, KS3 SATs levels, progression from KS2 to KS3 and GCSEs. These will be considered in terms of whole cohorts and bands and also with respect to particular sub-groups of pupils, i.e. those with very low or very high attainment and those who have been identified as having family or health issues.

The KS2 SATs average fractional levels enabled comparisons to be made between the groups at the start of Year 7 before pupils had been placed into either banded or mixed ability teaching groups.

The CATs scores were a useful indicator of the immediate effects of banding as the tests were taken in the first half term of Year 7.

The KS3 SATs scores from the end of Year 9 provided an indicator of pupil progress during the first three years of secondary school which was a period when the distinction between the banding system and the mixed ability systems was clear. Hence the comparison being made at this stage was between pupils of similar abilities who experienced the different grouping systems. Progression was calculated for each individual pupil and represented the difference between the level attained at KS2 and the level attained at KS3. Looking at progression rather than the absolute level of attainment enabled the higher level of attainment of the 2003 cohort at KS2 to be taken into account.

GCSE scores from the end of Year 11 were included as these are the final assessment of the outcomes of five years of secondary schooling. The scores included in this analysis were the mean scores for the core subjects English, maths and science. The distinction between the treatment of the two cohorts became less clear at KS4 as many subjects, including all core subjects, were taught in ability sets, within bands in the 2001 cohort and across the whole cohort in the 2003 cohort. Hence the comparison of GCSE scores at the end of KS4 is between pupils who experienced either a banded or mixed ability system for three years at KS3 followed by a setted system for the whole two years of study for GCSE exams. As it was frequently the case that the same pupils find themselves in bottom, middle or top sets for all subjects this setting system at KS4 had many of the characteristics of the banded system and was likely to influence attainment (Boaler, 1997).

11.2 Comparing outcomes for whole cohorts

Table 11.1 below summarises the performance data and gives comparisons of the means for the 2001 and 2003 cohorts as a whole.

There was no significant difference between the cohorts as a whole in either their CATs scores or their attainment at KS2, nor was there any significant difference in the progression from KS2 to KS3. However the 2003 mixed ability cohort had a significantly higher average fractional level at KS3 and significantly higher attainment in the core subjects at GCSE, although the effect size was small in both cases.

Table 11.1 Comparing outcomes by cohort

	2001 banded cohort		2003 mixed ability cohort		Comparison of means		
	mean	Standard error	mean	Standard error	t(DF)	Significance (2-tailed)	Effect size, r
KS2 Average fractional level	4.63	0.04	4.69	0.03	$t(419) = -1.14$	NS	0.06
Transfer to secondary school with banding (2001) or mixed ability (2003) at KS3							
Total CATS score	100.5	0.79	100.0	0.67	$t(443)= 0.46$	NS	0.02
KS3 Average fractional level	5.77	0.07	5.99	0.05	$t(409) = -2.41$	.016	0.12
Progression from KS2 to KS3	1.27	0.04	1.35	0.03	$t(385) = -1.76$	NS	0.09
Transition to setted system at KS4 for both cohorts							
GCSE average core subjects	4.77	0.09	5.02	0.08	$t(423)=-2.14$	.033	0.10

11.3 Comparing outcomes by band

In order to make comparisons between the 2001 banded and the 2003 mixed ability cohort, the pupils in the 2003 mixed ability groups were assigned to a band using the similar procedures to those used by the school for banding the 2001 cohort. These 'bands' existed only for the purpose of this analysis and neither the staff nor the pupils at the school would have been aware of these 'bands'. It was therefore possible to compare, for example, middle band pupils in the 2001 cohort who were aware of their middle band label with 'middle band' pupils in the 2003 cohort who had no ability grouping label imposed on them (Table 11.2).

Table 11.2 Comparing outcomes by band

		2001 Banded cohort		2003 Mixed ability cohort		Comparison of means		
		Mean	Standard error	Mean	Standard error	t (dF)	Significance (2-tailed)	Effect size, r
KS2 Average fractional level	Lower	3.36	0.07	3.46	0.05	$t(13)= 0.87$	NS	0.24
	Middle	4.17	0.04	4.25	0.03	$t(160)=1.51$	NS	0.12
	Top	5.00	0.02	4.99	0.03	$t(247)=0.06$	NS	0.00
Transfer to secondary school with banding (2001) or mixed ability (2003) at KS3								
Total CATS score	Lower	78.5	1.66	82.4	2.53	$t(23)=-1.41$	NS	0.28
	Middle	93.4	0.78	94.3	0.73	$t(184)= -0.87$	NS	0.06
	Top	108.7	0.60	106.3	0.67	$t(232)= 2.63$	.009	0.17
KS3 Average fractional level	Lower	3.80	0.21	4.72	0.16	$t(22)=3.27$	.004	0.57
	Middle	5.18	0.07	5.46	0.06	$t(162)=3.15$	.002	0.24
	Top	6.46	0.06	6.39	0.06	$t(244)=0.76$	NS	0.04
Progression KS2 to KS3 Average fractional level	Lower	0.83	0.15	1.52	0.16	$t(16)=3.28$	.005	0.63
	Middle	1.05	0.05	1.23	0.04	$t(147)=3.00$	.003	0.23
	Top	1.47	0.05	1.41	0.04	$t(241)=1.01$	NS	0.06
Transition to setted system at KS4 for both cohorts								
GCSE average core subjects	Lower	2.72	0.23	3.41	0.23	$t(21)=-2.10$	.048	0.42
	Middle	4.07	0.10	4.39	0.08	$t(173)=-2.41$	.017	0.18
	Top	5.50	0.09	5.68	0.09	$t(223)=-1.42$	NS	0.09

At the start of Year 7 there were no significant differences in the average fractional KS2 SATS scores between the two cohorts for pupils in the different

ability bands. However, when pupils were formally tested with CATs during the first half term of Year 7 the top band in the banded cohort had a significantly higher mean score. (The impact of banding on CATs scores is explored further in the section which follows.)

By the end of KS3 significant differences had emerged between the means for the lower and middle band pupils with pupils attaining higher KS3 scores in the 2003 mixed ability cohort. There was a large effect size for the lower band and a medium effect size for the middle band. The mean score for the top band pupils was slightly lower for the 2003 mixed ability cohort but the difference was not significant.

As with the data for the overall cohort, it was important to look at the progression of pupils between KS2 and KS3. These data showed that the mean progression for the lower and middle band pupils was significantly greater for the 2003 mixed ability cohort with a large effect size for the lower band and a small to medium effect size for the middle band. The top band had a lower mean progression for 2003 but the difference was not significant.

The mean scores for the GCSE core subjects showed that both the lower and middle band had significantly higher scores with a medium to large effect size for the lower band and a small effect size for the middle band.

11.4 CATs scores: early evidence of the effect of banding

In order to consider whether banding affected CATs scores, a comparison needed to be made between groups who would be expected to have similar CATs scores but who were in different bands. Two of the groups used in this analysis were selected by ranking pupils according to average KS2 fractional

levels and then identifying the 20 pupils immediately above and below the top/middle band borderline. These top/middle band borderline groups would not be expected to have significantly different CATs scores because of the relationship between KS2 SATS levels and CATs scores and the positions of the sample cases in these distributions.

The graphs below show the relationship between KS2 average fractional levels and total CATs scores; there was a strong correlation between them (Pearson correlation 0.837 in 2001 and 0.826 in 2003, both significant $p<.001$). The graphs in Figure 11.1 also showed that there was considerable variation in the CATs scores for pupils with KS2 levels close to the top/middle borderline (indicated by the vertical line, KS2 score= 4.60). This borderline was very close to the median value for the KS2 average fractional levels (4.67 for 2001, 4.71 for 2003) and as both CATs and KS2 average fractional levels were normally distributed cases would be grouped most closely around these median values and there would be least difference between cases in this area.

Another two groups were selected consisting of the 10 pupils immediately above and below the low/middle band borderline. For these groups the borderline lay in the tail of the distribution so significant differences between CATs scores would be more likely.

Figure 11.1 Correlations between Total CATS score and KS2 average fractional level
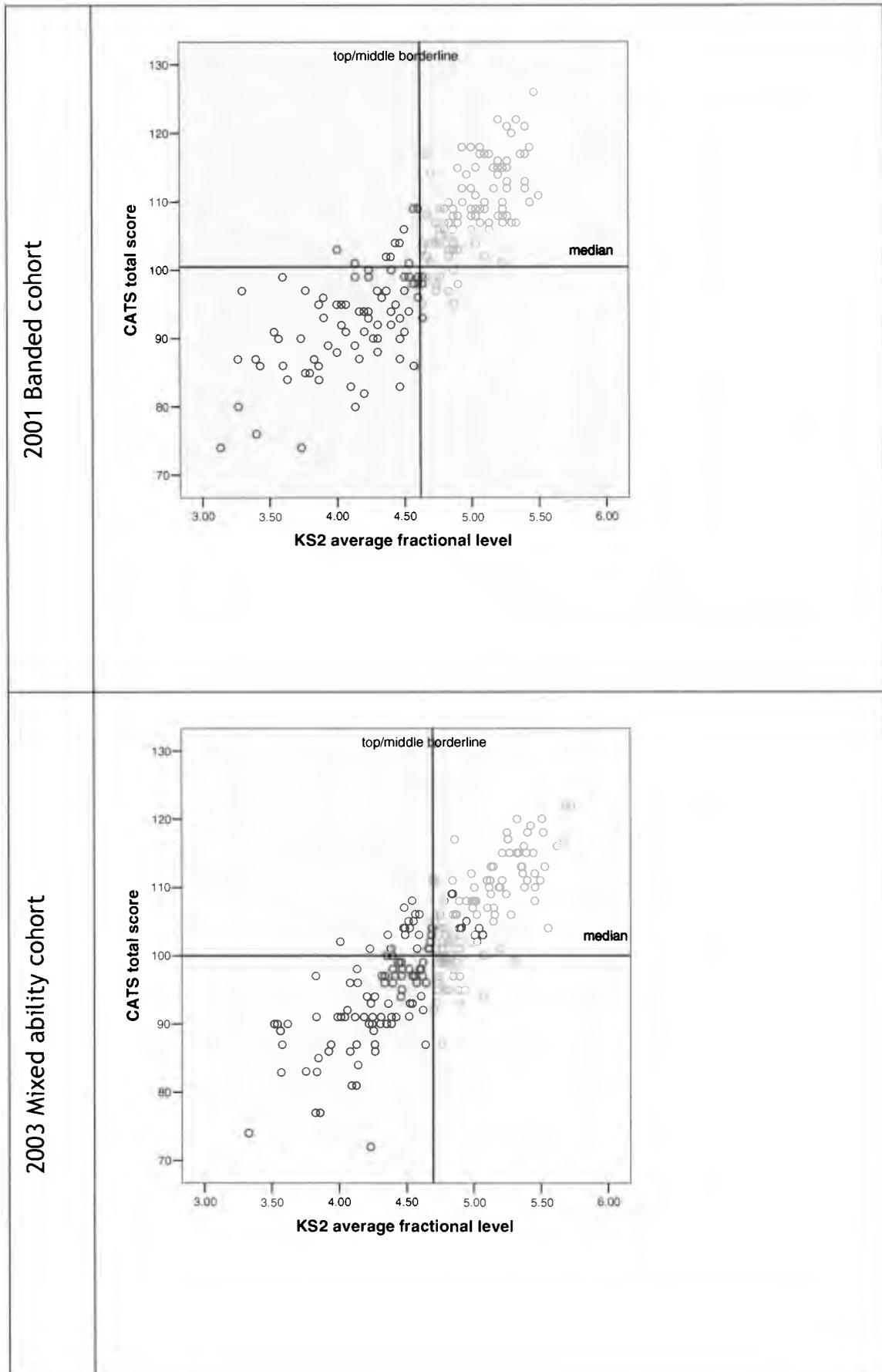
The data in Table 11.3 below showed that for the 2001 banded cohort there were significant differences in the CATS scores for borderline groups, with those above each borderline achieving higher scores. The effect size was large from the lower/middle borderline groups and medium for the middle/top band groups.

For the 2003 mixed ability cohort although the mean scores for the above borderline groups are higher the differences are not significant.

Table 11.3 Comparison of means for CATs tests for borderline groups

Total CATS score		Above borderline		Below borderline		Comparison of means		
		mean	Standard error	mean	Standard error	t(DF)	Significance (2-tailed)	Effect size, r
Top/middle borderline	2001 banded cohort	103.5	1.21	98.5	1.22	t(38)=-2.90	.006	0.43
	2003 mixed ability cohort	100.2	1.39	99.4	1.09	t(36)=-0.48	NS	0.08
Middle/lower borderline	2001 banded cohort	87.6	2.23	79.4	2.01	t(18)=-2.74	.014	0.54
	2003 mixed ability cohort	85.6	1.95	83.8	2.03	t(18)=-0.64	NS	0.14

These CATs results were particularly interesting because their outcome should be independent of external factors like pupils' classroom experiences. There were three reasons for this. Firstly, the tests took place during the first half term of Year 7 and it would seem unlikely that differences in classroom experiences could have had a significant impact in such a short space of time. Secondly, evidence from this study suggested that classroom experiences were actually very similar at this stage. Finally, CATs are designed to identify academic potential rather than assessing what has been learnt.

These findings suggested that banding had an impact on pupils' performance in formal testing situations and that differences between bands were already identifiable within the first half term. Given the nature of the CATs and the very early stage of Year 7, it seemed improbable that external causes such as differences in classroom practices could have produced this effect. Instead, these differences may indicate that band placement affected pupils' ability to deal confidently with academic testing.

CATs took place within two weeks of the first set of pupil interviews in Year 7. These interviews were with groups who were either just above or just below the top/middle band border and they produced evidence which suggested that at this stage pupils in the middle band had already adopted stigmatised identities which included very negative evaluations of their academic abilities. Pupils just above the borderline, on the other hand, had positive identities and were confident of their ability to cope with academic work. The results from the CATs were the earliest indicators that identity impacted upon attainment in tests.

11.5 Comparing outcomes for pupils with family or health problems

The group of pupils being considered here were those who had been identified from notes provided by primary teachers as having family or health problems. This group did not include SEN pupils, unless the special need relates to a health problem, e.g. visual impairment. Pupils who were identified as having family or health issues seemed to be disadvantaged with respect to attainment at KS2 with the mean for these pupils being well below the middle/top band borderline for both cohorts (see Chapter 6). The data in Table 11.5 below show

that, when compared to pupils in their own year who are not identified as having family or health issues, they had significantly lower attainment at KS2 with a small to medium effect size.

Table 11.4 Comparison of means for pupils with or without family or health issues

		No identified family or health issues		Some identified family or health issues		Comparison of means		
		mean	Standard error	mean	Standard error	t(DF)	Significance (2-tailed)	Effect size, r
KS2 Average fractional level	2001	4.62	0.05	4.29	0.08	$t(198)=3.18$	.002	0.22
	2003	4.63	0.04	4.12	0.15	$t(166)=3.81$	.000	0.28
Transfer to secondary school with banding (2001) or mixed ability (2003) at KS3								
KS3 Average fractional level	2001	5.91	0.09	5.31	0.15	$t(199 = 3.22$	.001	0.22
	2003	5.93	0.07	5.59	0.20	$t(157)= 1.46$	NS	0.12
Progression KS2 to KS3 Average fractional SATS level	2001	1.29	0.05	0.99	0.10	$t(198)=2.73$	.007	0.19
	2003	1.29	0.04	1.47	0.10	$t(156)=-1.60$	NS	0.13
Transition to setted system at KS4 for both cohorts								
GCSE average core subjects	2001	4.89	0.10	4.38	0.19	$t(192)=2.18$	.031	0.16
	2003	4.95	0.09	4.46	0.29	$t(156)=1.61$	NS	0.13

Attainment at KS3 showed that while significant differences persisted in the 2001 banded cohort, in the 2003 mixed ability cohort there were no longer significant differences between pupils who had or did not have identified family or health issues. In the 2001 banded cohort the progression made by pupils with identified family or health issues from KS2 to KS3 was significantly lower

than the progress made by other pupils; in the 2003 mixed ability cohort the progress was not significantly different to other pupils.

Comparisons of the progression made by pupils in each cohort showed that pupils with identified family or health issues make significantly greater progress in the 2003 mixed ability cohort with a medium effect size.

Table 11.5 Comparisons between cohorts of KS2 to KS3 progression for pupils with or without identified health or family issues

Progression KS2 to KS3 Average fractional SATS level	2001		2003		Comparison of means		
	mean	Standard error	mean	Standard error	t(DF)	Significance (2-tailed)	Effect size, r
No identified family or health issues	1.29	0.05	1.29	0.04	t(300)=-0.08	NS	0.00
Some identified family or health issues	0.99	0.10	1.46	0.97	t(54)=-2.96	.005	0.37

At GCSE, in the 2001 banded cohort, the scores were significantly lower for pupils with identified family and health issues when compared to those in the same year without identified issues; in the 2003 mixed ability cohort there were no significant differences at this level.

These data suggested that the early disadvantage experienced by these pupils was perpetuated by the banding system. One reason for this could have been that these pupils, because of their low attainment at KS2, would be more likely to have been placed in the lower bands. The mixed ability system seemed to offer an opportunity for these pupils to recover and to make up some of the ground lost at KS2.

11.6 Comparing outcomes for pupils with very low 'ability'

In the banded system pupils identified by the school as having very low 'ability' were taught in a small class. The aim of this practice was to enable teachers to provide more individual support. One concern about mixed ability grouping is that pupils such as these might be disadvantaged by being taught in larger classes as they might not be able to access the same level of support.

The comparison between bands has already shown that pupils in the lower band have significantly lower attainment at KS3 and GCSE in the 2001 banded cohort than similar pupils in the 2003 mixed ability cohort. This analysis looks at the outcomes for those with the lowest ability as measured by their CATs scores and the sample consists of pupils with total scores below 80.

Table 11.6 Comparison of means for pupils with very low ability

	2001 banded cohort		2003 mixed ability cohort		Comparison of means		
	mean	Standard error	mean	Standard error	t(DF)	Significance (2-tailed)	Effect size, r
KS2 Average fractional level	3.44	.12	3.44	0.23	t(12)= -0.02	NS	0.00
Transfer to secondary school with banding (2001) or mixed ability (2003) at KS3							
Total CATS score	74.0	0.95	74.7	1.12	t(12)=-0.46	NS	0.01
KS3 Average fractional level	3.57	0.30	4.70	0.23	t(12)= -2.79	.016	0.62
Progression KS2 to KS3 Average fractional level	0.13	0.26	1.25	0.17	t(12)= -3.30	.006	0.69
Transition to setted system at KS4 for both cohorts							
GCSE average core subjects	2.29	0.19	3.31	0.36	t(12)= -2.65	.021	0.49

These data showed that there were no significant differences between these very low ability pupils at the start of secondary school in terms of KS2 or CATs scores. However, by the time they took their KS3 SATS pupils in the 2003 mixed ability cohort had made significantly greater progress and attained significantly higher scores with a large effect size for both. This was maintained through to GCSE where again these pupils attained significantly higher grades with a large effect size.

11.7 Comparing outcomes for pupils with very high 'ability'

Another major concern with the introduction of mixed ability systems was that it would disadvantage pupils of high 'ability'.

Table 11.7 Comparison of means for pupils with vey high ability

	2001 banded cohort		2003 mixed ability cohort		Comparison of means		
	mean	Standard error	mean	Standard error	t(DF)	Significance (2-tailed)	Effect size, r
KS2 Average fractional level	5.33	0.04	5.56	0.09	t(8)= -2.69	.027	0.69
Transfer to secondary school with banding (2001) or mixed ability (2003) at KS3							
Total CATS score	122.0	0.86	121.0	0.58	t(8)= 0.86	NS	0.29
KS3 Average fractional level	7.51	0.14	7.60	0.12	t(8)= -0.47	NS	0.16
Progression KS2 to KS3 Average fractional level	2.19	0.12	2.04	0.10	t(8)= 0.87	NS	0.29
Transition to setted system at KS4 for both cohorts							
GCSE average core subjects	7.06	0.32	7.71	0.29	t(8)= -1.43	NS	0.45

The comparison between bands has already shown that there were no significant differences in attainment at KS3 and GCSE for pupils in the top band overall. However, concerns might still exist about the outcomes for those with very high ability who are a small group within the top band. This analysis considers the outcomes for these very high ability pupils by considering a sample of pupils with CATs scores of 120 or more.

At the start of secondary school the KS2 scores for very high ability pupils in the 2003 mixed ability cohort were significantly higher than those in the 2001 banded cohort. However, there were no significant differences in attainment of pupils in different cohorts at either KS3 or at GCSE and in both pupils are approaching the maximum score of 8. These data seemed to confirm that very high ability pupils were not disadvantaged by the mixed ability system.

11.8 Summary

Overall the mixed ability cohort in 2003 cohort attained significantly higher KS3 and GCSE scores than the banded 2001 cohort. Lower and middle band pupils attained significantly lower KS3 and GCSE scores in the 2001 banded cohort compared to equivalent pupils in the 2003 mixed ability cohort. There were no significant differences between top band pupils in the two cohorts.

These data supported the proposition that ability grouped systems produce a divergence in attainment which is mainly due to depressing the progress of middle and lower groups rather than enhancing the progress of higher groups. The comparison between lower and middle band groups in the banded cohort and similar ability pupils in the mixed ability cohort is essentially a comparison between similar pupils who either have or have not adopted a stigmatised

identity with respect to the academic aims of the school. The outcomes for pupils who belong to stigmatised groups are significantly worse.

In the 2001 banded cohort CATs scores were significantly lower for pupils below each band boundary, while in the 2003 mixed ability cohort there were no significant differences between 'borderline' groups. These findings are the earliest evidence that banding, and the adoption of stigmatised identities, has an impact on attainment in academic tests.

Vulnerable pupils, with very low ability, might have been expected to make better progress in the banded system as they were taught in a very small class and consequently had more individual attention from teachers. The "Big fish, little pond effect" (Marsh, 1987) would also predict that they would have made more favourable comparisons of their academic potential when they were separated from more able peers. However, this was the group that benefitted the most from the change to mixed ability and they attained significantly higher KS3 and GSCE scores in the 2003 mixed ability cohort. This suggested that the stigma associated with placement in a lower band had the greater impact and that it outweighed any benefits from small class and individualised learning.

One major concern with mixed ability grouped systems is that they will disadvantage higher ability pupils in general and have a damaging effect on the education of the most able. The findings from this study did not support this and no significant differences were found between pupils of very high ability in the two cohorts.

Finally, the vulnerable pupils with family or health problems were a group who had experienced disadvantage prior to the start of secondary schooling. In the

banding system the disadvantage was perpetuated and these pupils continued to underachieve. However, in the mixed ability cohort pupils with family or health problems made significantly greater progress and attained significantly higher KS3 and GCSE scores compared with similarly pupils in the banded cohort,

Chapter 12   Conclusions and discussion

12.1 Introduction

The principal outcome of this study is that social identity theory is identified as having a critical role in explaining both the personal and academic impacts of ability grouping systems.

This chapter looks at how this theory has emerged as an explanation of the effects of ability grouping and at how it has been built upon existing knowledge and the new evidence from this study. This chapter will first revisit the evidence that relates to each of the research questions and then consider how this has contributed to the development of theory. The limitations of this study and the extent to which findings from this case study are generalisable will then be discussed.

12.2 The research questions

The overall aim of the study was to explore why and how pupils were affected by being placed in groups according to ability. This aim was addressed through specific research question which were:

1. How did the ability grouping procedures operate and were the cohorts of pupils comparable before grouping took place?

2. What evidence was there that pupils developed group identities and stereotypical views of in- and out-groups and how quickly did they arise?

3. What non-academic differences emerged between pupils after being placed in ability groups?

4. What differences emerged in pupils' beliefs about intelligence and their learning behaviours?

5. In what ways were teachers' responses different to groups of lower or higher abilities?

6. Did ability grouping affect pupils' attainment?

The findings relating to each question were described in separate chapters and the conclusions are discussed below.

12.2.1 Ability grouping procedures and cohort comparability

At the start of Year 7, baseline data indicated that the cohorts being compared in this study were similar with respect to:

- Number of pupils

- Age and gender of pupils

- Social, economic and ethnic background

- Prior educational experience and attainment

They were considered sufficiently similar for any differences that emerged to be attributed to differences in their experiences in school.

The allocation to teaching groups was the first, and most fundamental, difference experienced by pupils in the secondary school. This was the difference which formed the basis of the 'natural experiment' and set up the comparisons between ability groups within the banded cohort and between the banded and mixed ability cohorts.

Pupils were allocated to teaching groups as follows:

For the banded cohort

- The school ranked pupils according to KS2 results and allocated the highest scoring 120 pupils to the top band, only taking account of other

factors if scores were tied at the borderline. A bottom band group was created from pupils with the lowest KS2 scores along with some pupils with higher attainment but who had special educational needs.

- On the first day of secondary school pupils arrived in school, pupils met their tutor and other members of their tutor group. They were then told which class, and hence which band, they were in and were taught in these banded classes for all subjects.

For the mixed ability cohort

- KS2 scores were used to ensure a range of abilities in each group and other information was used to try and establish a good social mix.

- On the first day of secondary school, pupils met their tutor and other members of their tutor group. This would be their teaching class for all subjects.

There were several issues with how pupils in the banded cohort were allocated to ability groups; these centred on the question of whether the division into ability groups had any educational validity.

Firstly, the number of pupils in the top band was determined by the school's decision to designate as 'top band' four classes of the traditional English class size of thirty pupils; it was not arrived at using educational criteria, for example, by including all pupils who had a certain level of educational attainment. In other words the borderlines were established at points that were organisationally convenient rather than educationally meaningful.

Secondly while ranked KS2 results were an apparently objective measure of attainment that gave an air of authority and reason to banding decisions, they took no account of prior disadvantage that pupils might have experienced or of

inherent inaccuracies in KS2 scores as a measure of ability. Wiliam (2001) highlights concerns about the validity and reliability of test scores and advises caution when dealing with apparently precise and accurate test score data. He notes that, even assuming a reliability of 0.90, 23% of pupils would be misclassified by level at KS2 and that because of the "fundamental limitations of what tests can do" when scores are used for grouping pupils a high proportion of pupils can be wrongly placed. In addition to general concerns about test scores, this study found that around 20% of the variance in the KS2 average SATS scores used by the school was due to issues other than ability, including family and health issues.

There are also issues which arise due to the high degree of permanence of the initial banding decisions which have the potential to disadvantage particular sub-groups of the school population. Ireson & Hallam (2001) comment that while band placement is highly likely to be permanent, where movements do occur factors such as behaviour can influence decisions to move pupils and can result in pupils, frequently boys, being in a set below their potential. They also note that it can be difficult to assess the incidence of these changes as records are not accurately kept by schools. Data from this study (Chapter 6) confirmed that placement in a band was highly likely to be permanent and that the limited movement that did take place was predominantly boys moving down and girls moving up, although the criteria for movement were not clear. In addition it provided data which established the extent of these changes; these showed that although at the start of Year 7 there was an even gender split in each band, by Year 9 there was a considerable gender imbalance with 10% more boys in the middle band and 10% more girls in the top band.

This study also provided evidence that pupils who were identified as having family social and health issues at primary school were likely to have underperformed at KS2 compared to other pupils; hence, they were more likely to find themselves placed in a lower band. The high permanence of band placement made it likely that these pupils who experienced early disadvantage would remain in lower groups throughout their schooling.

12.2.2 The development of social identities

Stereotyped identities can be considered as one of the defining characteristics of ability-grouped systems as they have been widely reported from the earliest work of Turner (1931, cited by Hallam 2002 and others) and in many subsequent studies (e.g. Oakes 1985, Rosenbaum 1976, Ireson & Hallam 2001). This study provides evidence that confirmed these stereotyped identities of high and low ability groups and in addition found evidence of stereotyped identities in middle band pupils. It also provides evidence about the process of development of these identities.

For example, the issue of whether pupils knew or needed to know the criteria for band placement seems to have been overlooked by the school. This raised a question that has been given little consideration in other studies of ability grouping which concerns how pupils understand their position; it seems to be taken for granted that pupils know why they are in a particular group. This study questioned that assumption and has found evidence that, although pupils were aware that allocation to bands was based on school factors and bore some relation to KS2 SATs results, many believed that other factors such as behaviour or concentration were involved. This belief seemed to arise because pupils' own comparisons of ability using their own knowledge of the KS2 levels

achieved by their primary classmates did not adequately explain the school's decisions. For example, they might know an ex-primary classmate who had the same KS2 SATs levels but who had been placed in a different band.

Another factor which has not been given consideration in other studies is the speed with which stereotyped identities become established. Evidence from this study showed that identities established very rapidly and were well established within the first half term at secondary school.

At the end of Year 6, immediately prior to starting secondary school, pupils had positive expectations of both top and middle bands; this suggested that stereotyped identities had not been adopted at this stage. However, in the banded cohort, it was very striking that distinct group identities had become strongly established by the time pupil interviews took place during the first half term at secondary school. The accentuation of differences and similarities was principally in terms of the school factors which pupils perceived to be pertinent to the banding decision: academic ability, speed of work, concentration and behaviour.

Another indicator that identities were adopted as a result of the banding was that these first term interviews were with borderline pupils between whom there were no significant differences, educational or otherwise, and hence who were effectively randomly assigned either to a higher or lower band. Despite the similarities between these pupils, they presented entirely different descriptions of their social group identities. The top band pupils had adopted what might well have been unrealistically positive identities, while middle band pupils had adopted undeservedly negative identities.

Later in Year 7 evidence from questionnaires showed that the stereotyped identities were widely held and shared by pupil in-groups and out-groups; the top band identity was one of quick, clever and high achieving pupils while the middle and lower band identity was slow, poorly behaved, and not very bright.

12.2.3 Personal and social effects of ability grouping

In this study, grouping by ability was found to impact on the personal and social dimension. In both the banded and the mixed ability cohorts behaviour scores, attendance and self esteem all showed correlations with attainment at KS2, with higher attaining pupils having higher self esteem scores, better attendance and better behaviour scores. However, in the banded cohort the differences were amplified with lower attaining pupils having significantly lower self esteem, attendance and behaviour scores than similar pupils in the mixed ability cohort. This suggested that placement in a low or middle band group did have a negative impact with respect to these measures.

Other studies (Gamoran et al 1995, Schwartz 1981, Oakes 1985) have reported similar findings regarding the negative impact of ability grouping on behaviour as well as the development of anti-school subcultures amongst lower ability groups (Hargreaves, 1967). However, findings relating to pupil self esteem (Kulik & Kulik, 1982; Hallam & Ireson, 2005) are somewhat mixed. The impact of ability grouping on attendance has rarely been considered in other studies; this is somewhat surprising as attendance data must be one of the most accurate and reliable sets of data maintained by schools.

12.2.4 How membership of a particular ability group influenced learning

There was some evidence in this study that pupils in the banded cohort were more likely to subscribe to the entity theory of intelligence than pupils in the mixed ability cohort. The notion that theories of intelligence might be important emerged during the process of categorising pupils responses and is a factor which has not been considered in previous studies. However, as noted in Chapter 9, there were methodological limitations as this evidence is drawn from responses to open questions rather than applying an instrument designed for the purpose and unfortunately the rapid change to mixed ability grouping meant that there was no opportunity to investigate this area in greater depth.

Differences between behaviours of pupils in high and low ability groups have been described in a number of studies where direct observation has been used as a method, for example Schwartz (1981). In this study, observations of classroom behaviours provided evidence that differences in learning and social behaviours were also apparent between top and middle band classes. Compared to top band and mixed ability classes, middle band classes were more demanding of teachers' attention when faced with work that presented individual challenge, were more likely to exhibit negative body language and responded to work that involved individual challenge by being reluctant to commit to answers. Middle band pupils were also more likely to deploy work avoidance strategies such as being slow to respond to instructions or not having books or equipment available.

Hanson (1989) describes these behaviours as "lesson evading and dissembling" and, although he does not relate these to ability grouping this is a useful notion as it demonstrates the potential disruptiveness of actions by pupils which might

not be identified as overt misbehaviour. These low level behaviours were seen to impede the communication between teacher and pupils.

12.2.5 Teacher responses

In this study, teachers were observed to have relatively low levels of anxiety when working with top band classes and to present activities in a way that promoted learning. However, when dealing with middle band classes teachers were observed to display higher degrees of anxiety and they presented work in a way that focused on task completion. In addition, there were differences in the classroom interactions with high ability pupils being given more support with their learning while middle band pupils received more 'domestic' support. Teacher responses to mixed ability classes were similar to their responses to top band classes.

Differences like these in the responses of teachers to high and low ability groups are widely reported (Turner, 1931; Oakes, 1985; Rosenbaum, 1978; Schwartz, 1981; Gamoran, 1989; Hallam & Ireson 2001, 2005) and can be considered as one of the typical characteristic of heterogeneous systems. Evidence is found in studies which use a range of methodologies including direct classroom observation, survey and interview.

This study is unusual in that it uses direct observation of lessons in combination with teacher interviews. This provides an opportunity to ask teachers to consider generalised responses in the light of specific instances and also allows for some exploration of the thinking behind teachers' actions. For example, the interviews provided evidence that teachers shared in the stereotypes that pupils held of different ability groups. They reported top band pupils to be highly motivated, well-behaved and capable of dealing with any learning

challenge whilst middle band pupils were perceived as poorly behaved, needing highly structured work and incapable of responding to challenge. However, when asked whether the classes they had been observed with conformed to these stereotypes, many of the teachers tacitly acknowledged that they did not and described some pupils, or whole classes as atypical.

12.2.6 How ability grouping affected educational outcomes

The impact on educational attainment was evident when comparisons were made between pupils of similar ability in the banded and mixed ability cohorts. The performance data showed that the whole mixed ability cohort in 2003 cohort attained significantly higher KS3 and GCSE scores than the banded 2001 cohort. In particular, lower and middle band pupils attained significantly higher KS3 and GCSE scores in the 2003 mixed ability cohort compared to similar pupils in the 2001 banded cohort. There were no significant differences between top band pupils in the two cohorts.

These findings were in line with other recent studies which have looked at progression from KS2 to KS3 (Ireson *et al*, 2005) and KS3 to GCSE (Wiliam & Bartholomew, 2005) with respect to different ability grouping systems and have found that pupils in lower sets made poorer progress. They concur with the 'divergence' hypothesis which suggests that ability grouped systems bring about a divergence in educational outcomes between pupils of different abilities which is mostly attributable to underachievement of lower ability pupils.

In addition this study looked at the outcomes for sub-groups within each cohort and found that there was no significant difference in attainment for the most able pupils and, hence, that these pupils were not disadvantaged by the mixed ability system. Two groups that benefited significantly from the mixed ability

system were the least able pupils and pupils who were identified as having family, health or social problems at primary school.

12.3 Developing understanding of ability grouping processes

Three of the findings outlined above had particular importance to the development of theory as they challenged widely-held beliefs about why ability grouping has an impact on pupils, and raised questions about how the process operates. These findings were: disadvantage was experienced by middle band as well as lower band pupils; the speed with which pupils adopt stereotyped identities; and the discontinuity in characteristics between groups of different abilities.

12.3.1 Middle band disadvantage implicates the school system

The first key finding was that it was not just the lowest ability group that was disadvantaged by ability grouping; the disadvantage was also apparent in the middle band groups. Distinctions between groups arose wherever borderlines were drawn by the school which suggested that allocating pupils to bands played an important role in the process. It also demonstrated that school practices and structures had a direct impact on pupils in terms of academic attainment and personal and social outcomes as well as a direct impact on the performance of teachers.

12.3.2 Rapid effect suggests that social identity is a critical factor

The second key finding was that distinct identities took hold very rapidly in the banded cohort and that stereotyped social identities were already strongly established when the first set of pupil interviews were carried out in the first term of Year 7.

The speed with which stereotyped identities took hold means that it is likely that the establishment of pupils' social identity preceded other observable differences between ability groups and, hence, presented the possibility that the adoption of stereotyped social identities might be the root cause of the differences which emerged between ability groups.

Other factors which might give rise to differences between groups include differences in teacher expectations, curriculum or pedagogic styles. However, it is by no means certain that there are differences in these factors at the start of Year 7 as the small number of pupils who did change band mid year reported more similarities than differences between the bands and pupils with friends in other bands also report similarities in work. Even if there were differences it seems unlikely that these factors could have had such a powerful impact within this short timescale.

12.3.3 Discontinuity suggests group-level effects

The third key finding relates to the comparisons between mixed ability and banded systems; these provided evidence that challenged the notion that the characteristics of ability-grouped systems were merely the aggregation of the individual characteristics of pupils in those groups. If there was no group level effect then a gradual change in characteristics might have been expected to have arisen as a result of underlying correlations between ability and personal or academic outcomes. However, rather than a gradual change, the evidence showed that there was a discontinuity between the bands which suggested that group-level processes were operating and resulting in divergence in attainment and polarisation in attitudes.

For example, comparisons between pupils of similar abilities in different cohorts produced a wide range of evidence relating to attainment, personal and social indicators and learning behaviours which supported the view that the banding system resulted in poorer outcomes for middle and lower ability pupils. This suggests that there is a group-level effect because if there was no group level effect then there should be no difference in outcomes. For the middle and lower ability pupils, these were essentially comparisons between groups in the banded cohort who had adopted a stigmatised identity and groups in the mixed ability cohort who did not have a stigmatised identity.

The borderline group provided further evidence for the existence of a group-level effect. These pupils were either just above or just below the borderlines between bands and were not significantly different in educational or any other terms at the start of secondary schooling. If there was no group-level effect then these pupils would be expected to have very similar outcomes at later stages of their secondary schooling. However, in the banded cohort, pupils above the borderlines achieved significantly higher CATs scores in Year 7 and went on to achieve significantly higher KS3 scores than those pupils who were just below each borderline. The comparison being made was essentially between pupils who were not inherently different at the start of secondary school, but who had subsequently adopted different social identities.

12.3.4 The link between identity and outcomes

These key findings suggested that allocation to an ability group was sufficient to trigger the adoption of social identities and that group-level effects could be identified in personal, social and academic outcomes and also in learning behaviours and experiences. Questions arose from these findings concerning

the processes that might be operating in order that pupils' social identities should establish so quickly and how these identities once established led to the differences that were observed between pupils in different ability groups. This led to an exploration of the ideas about group identity, stereotyping, responses to stigmatised identities, motivation and learning behaviours which were discussed in Chapter 4 and resulted in the formulation of the social identity hypothesis.

12.4 The social identity hypothesis

The social identity hypothesis proposes an explanation of why and how pupils are affected by being placed in groups according to ability. Briefly it suggests that placement in ability groups has an impact on pupils' social identity and that this has particularly damaging consequences for middle and lower ability pupils who adopt stigmatised identities with respect to the academic aims of the school. This leads to adverse responses, loss of confidence in academic abilities, the adoption of 'helpless' learning behaviours and, ultimately, to underachievement. The situation is exacerbated because teachers' responses to different ability groups are influenced both by the challenges of teaching classes with a high proportion of 'helpless' learners and their own stereotyped views of pupils in different ability groups.

12.4.1 Establishing a social identity

It is my contention that, for the banded cohort, it was the initial allocation to ability groups that initiated the process of establishing distinct social identities for each group and triggered the downward spiral of pupils who were labelled as low or middle ability. Tajfel (1981) describes the process of creating in-

groups and out-groups and the predilection of group members to accentuate similarities with their in-group and differences from their out-group without any requirement for social interaction or knowledge of other group members. This meant that the process of establishing the new identity could begin immediately, on the first day at secondary school, when pupils were told which class they would be in. It was possible that this process was particularly influential at this point when pupils would be adapting to their new school and their role and position within it.

12.4.2 Theories of intelligence and learning behaviours

For both cohorts of pupils, their experience of an education system with a strong emphasis on assessment and reporting of National Curriculum levels was likely to predispose them to subscribe to the entity theory of intelligence where intelligence is believed to be a fixed characteristic. For the banded cohort, the use of assessments of ability to allocate pupils to teaching groups was likely to further reinforce this view of intelligence and there was some evidence in this study that pupils in the banded cohort were more likely to subscribe to the entity theory of intelligence.

Dweck (1986) describes how the interaction of beliefs about intelligence, goal orientation and confidence can lead to pupils adopting either 'helpless' or 'mastery' behaviour patterns. The adoption of the entity theory of intelligence leads pupils to orient themselves towards 'performance goals' where their aim is 'to gain positive judgements or avoid negative judgements of competence'. The critical factor in determining the behaviour pattern adopted by pupils is their confidence in their own ability; if their confidence is high they will seek

challenge and become mastery-oriented, if their confidence is low they will avoid challenge and become 'helpless'.

Figure12.1 Achievement goals and Achievement behaviour

Theory of intelligence		Goal orientation	Confidence in present ability		Behaviour pattern
Entity theory (intelligence is fixed)	→	Performance goal (goal is to gain positive judgements or avoid negative judgements of competence)	If HIGH	→	Mastery-oriented Seek challenge(that fosters learning) High persistence
			If LOW	→	Helpless Avoid challenge Low persistence
Incremental theory (intelligence is malleable)	→	Learning goal (goal is to increase competence)	If HIGH or LOW	→	Mastery-oriented Seek challenge (that fosters learning) High persistence

(Dweck, 1986 p1041)

The evidence suggested that banding had the effect of boosting the confidence and raising the self esteem of the higher ability pupils in the upper band, while it depressed the self esteem of the stigmatised middle and lower bands. Pupils in the top band whose self esteem and academic confidence had received a boost were more likely to believe themselves capable of gaining positive judgements. Hence, they were more likely to adopt mastery behaviour patterns where they 'seek challenge (that fosters learning) and have high persistence' (Dweck, 1986). However, pupils in lower and middle bands had lower self esteem and academic confidence and were likely to have low expectations of gaining positive judgements. They were therefore likely to direct their efforts towards avoiding negative judgements and, hence, they were more likely to adopt helpless behaviour patterns where they 'avoid challenge and have low persistence'.

12.4.3 Responses to stigmatised identities

In addition to influencing learning behaviours, grouping by ability also impacts on the personal and social dimension. Some behaviours of pupils in middle and lower bands were interpreted as responses to a stigmatised identity such as avoidance, acceptance, denial, emotional arousal, problem-solving or cognitive restructuring. Table 12.1 below shows how some behaviours observed amongst lower and middle ability groups might be interpreted as responses to stigmatised identities.

Figure 12.2 Categorising behaviours as responses to stigmatised identity

Evidence seen in lower and middle ability groups in banded cohort	Response to stigmatised identity
Poor attendance Work-avoidance strategies observed in lessons leading to poor behaviour scores Negative body language	Avoidance
Some pupils, e.g. quiet girls, maintain separateness from group	Denial
More excitable, less controlled behaviour observed in lessons leading to poor behaviour scores	Emotional arousal
No evidence of pupils blaming unfair system. Failure internalised.	Acceptance
Higher attitude to work scores, high demands for individual attention in class	Problem-solving
Greater emphasis placed on social relationships leading to poor behaviour scores	Cognitive restructuring

It is worth noting that none of the pupils interviewed or surveyed with questionnaires made any reference to feeling that they had themselves been treated unfairly by the system, although some commented generally about it being wrong to treat people differently. This suggested that the experience of being placed in an ability group was likely to be attributed to internal factors.

12.4.4 How group identities impact on classroom interactions

For pupils in lower and middle band classes, helpless learning behaviours and responses to stigmatised identities combined to impact negatively on classroom interactions and on teachers' perceptions of and responses to these groups.

The proposition is that the essential difference between top and middle band groups was that top band groups had a higher proportion of 'mastery-oriented' learners while middle and lower band groups have a higher proportion of 'helpless' learners. So while top band classes tended to seek challenge and persist with learning, the middle and lower bands tended to avoid challenge and gave up easily. It was the teacher's task to engage all of their pupils with learning whatever their ability. However, if low and middle band groups did have higher proportions of helpless learners then teaching these groups was likely to be demanding beyond what might be expected from differences in ability alone.

The lack of persistence of middle band groups was likely to be a factor in teachers' selections of 'appropriate' learning tasks, for example, tasks which comprised structured activities with limited degree of challenge. Differences in teachers' responses were attributed in part to pragmatic responses to the behaviours of pupils in different ability groups. However, there was also evidence that teachers engaged in stereotyping and accentuating differences between top and middle band groups and differences in the classroom interactions suggested that subtle forms of discrimination might be operating. The higher levels of anxiety teachers experienced with middle band groups seemed to heighten their responses to any perceived or actual threat to their authority.

12.4.5 How allocation to a particular group affected educational outcomes

The adoption by middle and lower ability pupils of a stigmatised identity initiated helpless learning behaviours along with some unfavourable social and personal responses. This established a classroom climate whereby learning was

affected in a range of ways. For example, the time spent actively learning was reduced, there was a negative impact on the quality of interaction between pupils and their teachers and the quality of learning tasks was diminished. The impact on educational attainment was evident when comparisons were made between the banded cohort which contained lower and middle ability pupils who had adopted stigmatised identities, and the mixed ability cohort, which contained pupils of similar ability but who had not adopted stigmatised identities.

12.5 Limitations of this study

By using a mixed-method, case-study approach it has been possible to follow whole cohorts of pupils through the full five years of their compulsory secondary schooling and to compare the experiences and personal and academic outcomes of pupils in banded and mixed ability systems. While there are advantages to this approach of collecting a broad range of data within a narrow context, there are also limitations particularly relating to generalisability of the findings.

12.5.1 Fitness for purpose: context

The context of the study provided ideal conditions for a 'natural experiment' and presented the opportunity to make comparisons between consecutive cohorts of pupils who attended the same secondary school and were taught the same curriculum by the same teachers, in the same buildings with the same facilities available, but who experienced different methods of grouping by ability. The homogeneous nature of the school population meant that there were no identifiable complicating factors. This provided a similar situation to

that sought out by Rosenbaum (1976) for his study of tracking, however, while Rosenbaum's study compared the experiences of pupils in a tracked school, this study had the added dimension of an organisational change as the school was in the process of moving from a banded (tracked) to a mixed ability (un-tracked) system.

Where this study has made comparisons between heterogeneous and homogeneous systems, it has been between one cohort each from the mixed ability and banded systems and this relied on the assumption that these cohorts are sufficiently similar to enable this to be done. However, while at the start of Year 7 the only identified difference between the cohorts was the ability grouping system it was inevitable that other factors existed which might have generated differences, both academic and personal, between these cohorts as they progressed through the school.

For example, if one Head of Year approached pastoral work in a way that prioritised behaviour this might have had an impact on behaviour scores, although there is no way of knowing the extent or direction of influence that this might have had in the long term. On the one hand a focus on behaviour might encourage better behaviour through consistently maintaining standards, but on the other excessive concern with bad behaviour (a.k.a. constant nagging) might diminish the significance of positive aspects of the cohort, lead to a negative identity for the entire year group and paradoxically lead to poorer behaviour.

Other factors might more directly have affected attainment. One example was the introduction of 'catch-up clubs' for GCSE borderline pupils which might have had a greater influence on the core GCSE subject scores of pupils in the

mixed ability cohort as although these clubs were in place for the banded cohort they were better established and might have been operating more effectively for the mixed ability cohort.

In real world research it is inevitable that over time issues such as these introduce variability into the system. In this case study, the further removed in time observations are from the start of secondary school, the more likely it is that factors other than the method of ability grouping could have influenced outcomes. Hence, the validity of comparisons was likely to reduce with time.

12.5.2 Fitness for purpose: research strategy

The overarching aim of the study was to develop theory about how and why ability grouping had an effect rather than framing the research in terms of established theory. The approach was therefore exploratory and involved collecting and analysing a wide range of data and allowing ideas to emerge and develop; the research strategy was effective with respect to this aim. However, there was inevitably a risk with this approach that insufficient data were collected relating to issues that were subsequently identified as being crucial.

In this case study, if the social identity hypothesis had been fully-formed at the outset then the design of the research would have been different. For example, it has emerged that the very early stages of secondary school were critical to the process of establishing group identity. It would therefore have been valuable to have collected a wider range of data during this period, such as lesson observations and follow-up interviews with teachers as well as a broader sample of pupil interviews. This would have provided additional evidence about the establishment of identity as well as evidence about how

quickly differences in classroom climate became apparent and how quickly teachers' stereotypes of groups developed. Anecdotally, this happened within the first term as teacher attitudes changed from thinking at the start that their middle band classes were not a problem ("lovely class - not like a middle band at all") to the point where they would think twice about doing practical work, whole classes were on some kind of behaviour report and discussions had begun about splitting up disruptive pupils.

The change in the ability grouping system was unexpectedly rapid, particularly given the stability and longevity of the banding system which had been in place, unaltered in principle, for thirty years. As a consequence, by the time the significance of this critical first term period became apparent, the final banded cohort were beyond this stage and the possibility of collecting further evidence from them had been missed.

12.5.3 Quality of data sources

While some data were collected specifically for research purposes, this study also used 'real' school-based data consisting of data which existed naturally within the research context. Although these 'real' data might present issues of accuracy and quality, they had the advantage of providing a wide range of data that would otherwise have been difficult or impossible to obtain. Another benefit of 'real' data was that it enabled issues to be identified and outcomes described in the school's own terms; an advantage of this was that it was likely to facilitate the transfer of research findings into effective practical action.

Issues of quality arose because while some data (e.g. attendance, external assessment data) were collected systematically over the course of the study, other data were not. This resulted in some potentially valuable data sets (e.g.

rewards, sanctions and internal assessments) being excluded from the analysis because of the variability in the collection or recording methods used. The primary teacher comments were an example of a data set which was included despite some weaknesses in the collection procedures. These weaknesses came about because for each cohort a different member of the secondary school staff (the incoming Head of Year 7) was involved in interviewing the primary teachers and, as there was no common format, there was a possibility that the interviewer could introduce bias, for example, through placing greater emphasis on behaviour, social or family issues in their questions. Specifically, in the mixed ability cohort there was a higher proportion of behavioural comments and a lower proportion of family and health comments and while these might be accurate descriptions of each cohort they might also be a reflection of different approaches to pastoral work where one Head of Year prioritises behaviour more highly and hence focussed on these issues while questioning the primary teachers.

Data collected specifically for the research could also be problematic and subject to uncontrollable influences. This was particularly true of lesson observations where the aim was to capture as real a picture as possible of a 'normal' lesson without influencing the style of the lesson or the choice of activities. As teachers determined the content and activities for their own lessons, this did provide evidence relating to teacher pedagogy. However, it did not necessarily answer questions about classroom interactions. For example, if a lesson was predominantly didactic it was difficult to form any judgement of the extent to which pupils were engaged or the nature of their engagement as their opportunity to interact was restricted.

12.5.4 Reliability of findings

Over the years, a wide range of methods has been used in studies of ability grouping including quantitative analysis of assessment data and qualitative methods such as observation, interviews, surveys and questionnaires. Many of these methods were specific to their contexts and, hence, when making comparisons between studies, it is not possible to base judgements of reliability on the shared use of identifiable instruments. For example, Slavin (1990) in his meta-analysis draws together studies which use a wide range of measurements of attainment to address the question of whether pupils' performance is affected by ability grouping. Here it is the design of the research rather than the precise instrument used which he considers to be critical to the comparability and generalisability of each study; in effect different sources of data are being used to address similar questions. The coherence of the findings of one study with others can provide an external test of reliability which can support the reliability of evidence in that individual study.

Support for the reliability of the evidence in this study is found in the correspondence of its core findings with those of other studies of ability grouping. Examples of findings which are consistent with other studies include: permanence of placement, divergence of attainment, polarisation of attitudes to school, name-calling, and classroom climate.

Uncorroborated findings, such as the speed of establishing the social stereotypes and the early impact on pupil attainment in CATs, form only part of the study evidence. However, there is no reason to suppose that these

uncorroborated findings should be any more or less reliable than other evidence from the study.

12.5.5 Validity and generalisability of the social identity hypothesis

This research has been presented in a way that made the triangulation of data apparent by bringing together evidence from different sources to address each of the research questions in turn in order to provide support for the validity of the findings. For example, the validity of the findings relating to pupil behaviour was supported by the triangulation of data from pupil questionnaires and from teacher assessed behaviour scores; the stereotypical views held by pupils were supported by the triangulation of data from two sources (pupil interviews and pupil questionnaires); and the validity of findings relating to the impact of ability grouping on pupil attainment was supported by the triangulation of data from KS3 SATs and GCSE scores.

This approach is what Robson (2002) describes as a *"theory-generating format"* as it allows the validity of each stage of a theory to be established and hence supports the validity of the theory as a whole. The aim of this study was to develop theory and it is this social identity hypothesis, rather than the particulars of individual parts of the case study, that can be considered to be generalisable.

The final chapter which follows will discuss the potential of the social identity hypothesis to be generalised both within the area of ability grouping and in a wider educational context.

Chapter 13   Educational Developments

13.1 Introduction

The social identity hypothesis has emerged as an explanation of how the ability grouping system operated by one particular school generated underachievement in middle and lower ability pupils. However, I believe that it may be possible to apply these ideas both to other situations involving ability grouping and more generally to situations where underachievement is an issue. It presents considerable scope for developing further research, both theoretical and methodological, and I also believe that there is potential for direct, practical applications within schools which may lead to benefits in terms of learning and behaviour.

13.2 Developing social identity theory in the context of ability grouping

The limitations of this study point to a need to undertake further research relating to a number of issues. These are outlined below in relation to the key ideas that supported the development of the social identity hypothesis.

13.2.1 Borderlines

One of the key findings from this study was that it was not just lower ability pupils who experienced disadvantage; middle band pupils were also affected. Other studies have found that setting has been shown to produce effects that are very similar to banding with expectations and achievement being low in low sets and high in high sets (Abraham, 1989; Boaler, 1997; Ireson & Hallam, 2001). Hence, it is possible that the processes in operation in setted systems may also be triggered by the impact on pupils' identities of allocating them to

particular groups. This is important as the banding system considered in this study is now obsolete in that school and, as it was a particularly rigid form of ability grouping, might never have been representative of common practice.

It would therefore be of interest to consider whether social identity theory is generalisable to other forms of ability grouping such as setting by considering the identities adopted by pupils in different groups, including high ability groups. It would also be interesting to explore the basis for pupils' academic identities in mixed ability situations.

13.2.2 Pupils' social identities

The second key finding was that pupils very rapidly adopted group identities. The speed with which identities become established was important as it supported the hypothesis that the adoption of social identities preceded other observable differences between groups and hence that it was this which drove the process.

In the school in this study the critical time for this process was the start of Year 7. However, for schools where the principal means of ability grouping is setting the critical period may occur later. There are questions about whether the adopted identity is global and affects all subjects, as is likely to be the case with the banded system, or whether the impacts may be limited to the specific subjects, for example, those involved in setting. There is also the question of whether pupils are more susceptible at certain times, for example, at the point of transferring between schools when their whole relationship with school might be affected.

The issues which need to be examined in more detail relate to changes during these critical periods with respect to pupils' social and academic identities,

and hence their confidence, optimism and motivation to engage with school work. In addition, as learning behaviours are the 'missing link' between responses to grouping systems and attainment, consideration should be given to pupils' beliefs about intelligence, whether they adopt performance or learning goal orientations and the type of learning behaviours that pupils demonstrate. Here, established instruments for measuring motivational variables (Blackwell, Trzesniewski and Dweck, 2007) could be used alongside interpretations of qualitative responses and observations.

In order to establish the impact of allocation to ability groups, data would need to be collected before and after the event and further evidence relating to classroom interactions along with performance data would be required to test the proposition that the differences in social identity very rapidly have an impact on learning behaviours and outcomes.

13.2.3 Group characteristics

The third key finding was that there was discontinuity between the characteristics of ability groups in terms of social, personal and academic outcomes. This was a strong indication that group level processes were operating rather than simply an aggregation of individual characteristics.

There was some evidence in this study of teachers feeling powerless to influence middle band classes and excluded from the separate cultures that they perceived existed in these groups. In the school in this study, while the banding system was operating, pupils spent the majority of their time with their teaching groups as they moved around the school from one subject and teacher to another. These groups had no identifiable adult lead figure and were able to develop social norms and establish their own societies beyond

direct adult influence. This presented problems particularly in the middle and lower band groups who might be focussed on work avoidance. When pupil 'characters' emerged as leaders the school responded by moving these pupils between groups. However, this was largely ineffective since a new leader would inevitably emerge in the reconfigured groups.

The issues of leadership and power-relationships in the classroom may be worth exploring further in relation to ability grouping as they have the potential to impact on group behaviour.

13.2.4 Vulnerable groups

Vulnerable groups are those sub-groups of a schools' population who might be particularly disadvantaged or discriminated against by ability grouping practices (Gamoran, 2001; Wiliam & Bartholomew 2003).   For example, in this study although movement between bands affected only a small number of pupils it resulted in 10% more girls than boys being in upper bands which, given the greater progression of pupils in top bands, might in itself be sufficient to bring about a significant difference in achievement in terms of overall exam pass rates.   Hence, there is the possibility that at least some of the underachievement of boys might be attributable to their disadvantaged position within ability grouped systems. If this is the case, then it is also possible that pupils from other sub-groups of the schools' population, for example, ethnic minority groups or looked-after children, might also find themselves drifting down an ability grouped system into disadvantaged positions and hence into under-performance in exams.

It would also be interesting to explore both within school and long-term effects of ability grouping practices for pupils in vulnerable groups, for example,

through monitoring performance and pastoral data, interviews about their experiences of schooling and aspirations, or through analysis of pupils' choices post-16.

13.3 Developing methodology

13.3.1 Exploring hidden characteristics

Oakes (2005) comments on how ability grouping has unintended consequences for both teachers and pupils and suggests that these unintended consequences might best be explored through direct observation of learning in the classroom. This would provide evidence of how people are actually interacting rather than how they believe, or wish to believe, that they are.

For example, while a teacher might be observed responding differently to pupils of different gender or ethnicity, the same teacher might, without any intention of misleading, respond to a questionnaire that they treated all pupils equally or seek to justify differences in terms of different pupil needs. These subtle forms of prejudice (Fiske, 1998) may be 'hidden' within respondents and, as the stereotypes may not be consciously held they may be denied as they conflict with the respondents' self-images. The notion that unconscious responses to stereotypes might influence the interactions between teachers and pupils and that this might play a role in generating underachievement in sub-groups of pupils who are perceived negatively by teachers is another area for further investigation. Teachers' responses to different ability groups have been considered in part to be pragmatic responses to these groups but also partly due to subtle forms of prejudice and discrimination to the stereotyped views that they hold.

Similarly, pupils may individually express positive attitudes to school and learning but may behave quite differently in a group situation. Pupils have been found to identify teachers (Boaler, 2003; Verkuyten, 2002) as being responsible for their failure to learn or behave. However, while there may be an element of culpability on the part of teachers it may be that pupils underestimate or are unaware of the effects of the group dynamic and consequently attribute their difficulties in a group situation to an identifiable and concrete external agent, the teacher.

Video recording of lessons is particularly valuable as a method for accessing hidden attributes as it enables recordings to be made of subtle behaviours such as those observed in this and other studies (Hansen, 1989; Nardi and Steward, 2003) and provides data relating to actual classroom interactions and discourse. For example, in this study use has been made of video recording for analysing pupils' body language as an indicator of engagement with learning and this could perhaps be further developed as a method. In particular the practice adopted in this study of directing the camera towards the class rather than the teacher changes the perspective and shifts the emphasis of the study to learning rather than teaching.

13.3.2 Pupils on the margins

In this study some use has been made of the analysis of data relating to 'borderline' pupils and this is a methodological device which has potential for development. Slavin (1990) when discussing approaches to learning about "the differential impacts of track placement" suggests that "One way would be to randomly assign students at the margins to different tracks" and says that this is "something which has never been done."(p490) I would argue that, in every

ability grouped situation, "students at the margins" are effectively randomly assigned to different tracks because borderlines are decided on the basis of organisational convenience and there are no significant differences, educational or otherwise, between pupils just above and those just below borderlines. Indeed, in the same article, Slavin himself describes an example of a study (Balow, 1964) which found that when using a test different from that used for group placement that there was "enormous overlap between students in supposedly homogeneous seventh grade math classes" (p490). Hence, I would argue that the opportunity is there in every school with banding, setting, tracking or streaming to study the impact of these systems on the 'students at the margins'.

13.3.3 Re-examining ability grouping research

A considerable amount of research has been undertaken relating to the effects of ability grouping, some of which has been drawn together into meta-analyses or surveys (Gamoran & Berends, 1987; Kulik and Kulik, 1982; Slavin, 1990).

Gamoran and Berends (1987) in their synthesis of survey and ethnographic research on stratification in secondary schools identify differences between the findings of survey and ethnographic studies. They note that ethnographic research appears to show clear differences in classroom climate and learning opportunities between high and low ability groups. These would be expected to produce significant differences in achievement; however the findings from survey research give mixed results. One reason that they propose to explain the different findings relates to the inadequate descriptions of the social structure of schools in survey research when compared to ethnographic research which can, because of its close involvement with the research

environment, more effectively identify the position of a group in a tracked system.

In order to ascertain overall effects, some authors have presented meta-analyses of research which had an experimental design and which satisfied certain criteria. For example, Slavin (1987,1990) selected studies in which ability grouped classes were compared to heterogeneously grouped classes, achievement data from standardised tests were presented, initial comparability of samples was established, ability grouping was in place for at least one semester and at least three ability grouped and three control groups were involved. For Kulik and Kulik (1982), the criteria were that the studies took place in secondary classes, reported on homogeneous and heterogeneous classes and were free from 'crippling methodological flaws'. However, although these meta-analyses included studies with an identifiable experimental style of research design, using these criteria both meta-analyses could have, and did, include studies where the ability or heterogeneous grouping applied within a limited number of subjects or was in place only for a relatively short time. Such interventions seem unlikely to have had much impact on pupils' social identities and might, therefore, have been unlikely to have much impact on achievement.

When discussing the outcomes of his meta-analysis of ability grouping in secondary schools, Slavin (1990) makes a second suggestion about developing research to learn about the effects of tracking which would be "to compare similar students randomly assigned to ability grouped or un-grouped systems"(p490), although he acknowledges that this has already been done without any clear trend becoming apparent. This suggestion of random

assignment to different groups would seem likely to continue to produce conflicting and divergent results unless more account is taken of the context of the interventions within the social structure of the schools. Without knowing this it is unclear whether the random allocations of pupils to ability grouped or un-grouped systems is embedded in the practice of the school or whether the research is based on observations of a superficial intervention. The findings from this study suggest that the significant variable is whether or not pupils have adopted stigmatised identities; whether this is coincident with allocation to homogeneous or heterogeneous groups in an experimental study depends entirely on the context. For example, the practice of teaching a single subject in mixed ability groups, even for an extended period, might not counteract the influence on pupils' identities of a more widespread school practice of ability grouping.

It would be interesting to re-evaluate studies of ability grouping against a set of criteria which included consideration of whether a particular system or intervention was likely to have impacted on pupils' social identity.

13.4 Social identity theory and school practice

The idea that social identity is a significant factor with influence over academic and personal development has wide ranging implications for schools as it introduces a social parameter into a system which has been largely predicated upon the individual. It suggests that grouping systems and practices should be designed with consideration for their impact on pupils' social identities and that effort should be put into pro-active approaches to developing positive social identities. It also suggests that, in order to benefit in terms of academic

success, approaches to teaching and learning which promote a mastery orientation to learning should be adopted.

Essentially I am proposing that two key questions that should be asked of any system, practice or intervention:

- Will it promote Positive Social Identities?

- Will it promote Mastery-oriented Learning Behaviours?

13.4.1 What social identity theory will and won't do

Social identity theory provides a framework which helps to explain why and how some existing practices generate underachievement and construct failure. As such, it has the potential to provide a basis for judging the likely success of future innovations. However, it will not provide a one-size-fits-all recipe for success.

So, for example, it would be wrong to interpret the findings of this study as outright support for mixed ability grouping over banding. The findings indicate that in the school in this study, the banding system resulted in pupils of lower and middle ability adopting stigmatised identities and that this had a long term impact on their academic attainment whereas the mixed ability system provided the opportunity for pupils across the full ability range to begin their secondary schooling with positive social identities. The mixed ability system is preferred in this case because it promotes positive social identities and academic attainment amongst pupils across the ability range. If banding or setting could be introduced in a way that did not result in pupils of lower and middle ability pupils adopting stigmatised identities then these practices would not be expected to have the damaging effects observed in this and many other studies.

Whatever the practice being considered it is vitally important to be aware of exactly how it is being implemented because the influence that it exerts will be determined by the way it is applied. For example, mixed ability groupings may not benefit lower ability pupils if attention is drawn to their status, for example, by ranking within the class according to attainment, rewarding attainment rather than progress or excluding them from mainstream activities in order to get additional support with basic skills. This would be likely to result in the adoption of stigmatised identities and helpless learning behaviours.

As many of the examples I am going to describe below are common practice in some schools, there is possible criticism that there is nothing new here. In terms of examples of educational practice, I would have to agree because there is very little that has not been tried in some form somewhere and, hence, any claim for 'newness' is likely to be no more than re-packaging of the old. However, what is new is the proposal to use social identity theory as a framework for evaluating educational practices.

13.5 Examining existing practice and developing strategies

Before embarking on any change in practice, it is essential that schools examine their existing practice and identify which specific issues need to be addressed in order to effectively target responses by dealing with actual rather than imagined problems.

13.5.1 Monitoring performance of sub-groups

School league tables focus on the performance of whole cohorts of pupils, teacher performance management procedures focus on class results and target

setting within schools tends to focus on individual pupils. However, despite the wide availability of pupil data and the facilities for analysis, differential performance of sub-groups within the population can easily be overlooked. The performance and pastoral data held by schools provide the opportunity to monitor the experiences not only of individual pupils and whole cohorts but also to consider outcomes for sub-groups within the school population, for example, boys, girls, ethnic minorities, looked after children, gifted and talented, SEN. In this study, analyses of school data were undertaken not only with respect to the sub-groups of high, middle and lower band pupils but also with respect to pupils of exceptionally high or low ability as well as pupils with family, health and social problems. This provided a means of assessing whether the experiences of these sub-groups were comparable with the overall population and, hence, to provide an indication of whether these groups were subject to any hidden discrimination. By analysing data at a group level, particularly in relation to measures of progression, it is possible to examine whether equality of opportunity translates into equality of outcome.

13.5.2 Considering existing grouping structures

The findings of this study suggest that school grouping structures have the power to influence social identity. Hence, another key issue to consider is the configuration of the existing grouping system.

Pupils in a secondary school will belong to a number of different formal social groups and their relationship with these groups will have an impact on their social identity (e.g. school, year, house, sports teams, activity groups, tutor group, teaching groups). Of these it is likely to be the teaching groups which exert the most powerful influence on pupils' academic identities as it is in

these groups that pupils do their 'work' and it is where they spend the majority of their time. In addition to the formal school groupings there will be informal social structures from friendship groups to gangs; where pupils become disconnected from school informal groupings may become the most influential social group.

Schools need to examine existing grouping practices from the perspective of pupils and consider their impact on pupils' social identities, for example, how many groups does each child belong to, what is the ethos of each group, and do groups benefit from adult guidance.

13.5.3 Assessment, recording, reporting and rewards

Assessment, recording, reporting and rewards procedures also need to be considered because they are the means by which the school communicates which attributes it values and provides pupils with individual judgements of how they measure up. These procedures need to be considered in terms of whether they are likely to encourage a malleable or an entity view of intelligence and, hence, how they are likely to influence the learning behaviours of individual pupils.

For example, over-emphasis on summative assessments is likely to engender the entity view of intelligence and could lead to stigmatised identities amongst those who have low levels of attainment and, hence, to the adoption of 'helpless' learning behaviours. However, if the principle means of communicating and valuing the outcomes of assessment was in terms of improvement or progression, then the focus shifts to a malleable view of intelligence. Pupils with low attainment can make gains in these terms in the

same way as those with high attainment. It therefore becomes possible for summative assessment to promote positive academic social identities.

13.6 Strategies for educational development

Consideration of existing systems may identify practices that are exerting a negative influence and some improvement should be achieved by addressing this. However, in addition, schools can also consider a pro-active approach by developing strategies that aim to promote positive identities and promote mastery-oriented approaches to learning.

13.6.1 Promoting positive group identities

The findings of this study suggest that schools have the power and are in a position to manipulate some conditions which can influence social identity. The following are examples of practices likely to support the development of positive social identities:

- Establishing teaching groups with a single identifiable adult leader. For example, in the mixed ability cohort in the study school, the tutor group is the teaching group and, hence, the tutor is in a position to influence the ethos of the group and establish social norms.

- Develop positive group identities. For example, through group activities within the community and developing opportunities to reward positive behaviours and achievements at a group level.

- Harness the power of the peer group in dealing with problems. For example, by recognising that group issues may respond to group level interventions. For example, it may be more appropriate to address

behaviour or friendship problems by treating them as a group issue rather than seeking to identify and blame individuals.

- Encourage supportive peer relationships. For example, by acknowledging that friendships can have a positive impact on academic work as well as emotional well-being and developing cooperative practices within the classroom.

- Encouraging all pupils to take up extra curricular opportunities and make such opportunities relevant to all (even if this means having a computer games club) as this is likely to encourage pro-social behaviour and promote social connectedness with the school.

- Support work that develops social and personal skills, for example, Citizenship, PSHE, SEAL, UKRP and school councils.

- Provide opportunities for the adjustment of social identities, for example, by establishing a clear distinction between KS3 and KS4. Distinctions of this sort are common in schools with sixth form provision where they mark the transition from KS4 to KS5 with changes in uniform, rules and privileges going alongside expectations of a more mature and business-like approach to academic study form older pupils.

13.6.2 Promoting mastery orientation

While pupils might individually be inclined to a particular view of intelligence and be oriented towards particular learning behaviours, there are strategies that schools could engage in order to promote mastery-orientations to learning. Mastery-orientations should, according to Dweck (1986), be encouraged by promoting belief in incremental (malleable) theories of intelligence. One possible approach to this is through interventions which aim to change pupils'

motivation by directly teaching them about incremental theory (Blackwell, Trzseniewski and Dweck, 2007). Another approach is to adopt practices that emphasise learning goals.

A number of strategies can be used to promote the idea that intelligence is malleable which are all linked in some way to the means by which teachers and schools communicate the value that they place on measures of ability. At a whole-school or departmental level, probably the most important issue is the choice of ability grouping method; while in the classroom a number of strategies could be applied.

- Choose a grouping structure that provides all pupils with the opportunity to develop and promotes the belief that they can progress, rather than one that demoralises and restricts opportunities.

- Make developmental rather than judgemental assessments in order to encourage pupils to improve skill and knowledge rather than to get to next level, e.g. Assessment for learning (Black *et al*, 2002) rather than excessive use of tests, grades, levels or ranks.

- Reward progress rather than attainment. As well as promoting the idea that improvement is possible and valued, using summative assessment data in this way enables all pupils to succeed.

- Use "Process praise" rather than "Person praise" (Kamins and Dweck, 1999)

As well as promoting the malleable view of intelligence these strategies also emphasise the intrinsic value of learning, rather than seeing it as merely instrumental in the achievement of extrinsic rewards.

The promotion of learning goals should, on the face of it, be more straightforward since it is common practice to prepare lesson plans which clearly state learning outcomes. However, as this and other studies (Boaler, 2003; Gamoran, 1993) have observed the same curriculum design does not necessarily lead to the same learning outcomes either because of the nature of the class or because of the disposition of the teacher.

For example, learning outcomes usually describe expected gains in pupils' knowledge or skills and might therefore be expected to promote learning goals. However, teachers may themselves be tied into a performance goal way of thinking. As a result they may judge the success of pupils in achieving their learning goals by whether or not they have completed a certain quantity of work; in other words by work-output which is in effect a performance goal. Hence, a pupil who wrote nothing at all during a lesson might be perceived as doing no work even though, by taking part in other ways such as listening to what was going on, he or she might have learned successfully. Such a pupil is likely to get into trouble for failing to achieve the implicit performance goal of completing a certain number of tasks, despite succeeding in the explicit task of learning.

The variation which teachers can introduce into the delivery of curriculum activities suggests that it is the disposition of teachers towards teaching and learning that should be the principal consideration when seeking to promote learning goals in the classroom and that it may be not so much what is taught but how.

13.7 Final thoughts

In this case study I have had the opportunity to consider the social, personal and academic impacts on pupils within a single school who experienced different systems of grouping by ability. By looking at all of these issues within a single case study it has been possible to consider the apparently competing demands of individual benefit and common good. What emerged was in line with other studies which have found that ability-grouped systems produce a divergence of attainment by suppressing the attainment of lower ability pupils and that they produce a polarisation of attitudes towards school and learning. The evidence from the school in this study suggested that the mixed ability system promoted the 'common good' in terms of social and personal outcomes and gains in attainment for lower ability pupils, without any detriment in terms of academic attainment for higher ability pupils. This seemed to be a win-win situation where there was no competition between individual benefit and common good.

This study also found that it was allocation to ability groups that initiated the rapid establishment of social identities, without the need for pupils to experience differential treatment. This process, in which lower and middle ability groups adopted stigmatised academic identities, created differences where previously there had been none. It seemed that the ability-grouped system had the capacity to create difference where it had not existed and thereby generated anti-social behaviour and antagonism towards learning as well as discriminating against a large numbers of children on the basis of an arbitrarily imposed and educationally meaningless divisions between 'more' and 'less' able. Moreover, for young people, as school is an institutional

representation of society, it seems entirely possible that the dissociation engendered by ability grouping might be transferred to a wider social context as pupils grow up and leave school.

Bibliography

Abraham, J. (1989) Testing Hargreaves' and Lacey's Differentiation-Polarisation Theory in a Setted Comprehensive, *British Journal of Sociology*, 40(1) 46-81

Barker Lunn, J.C. (1970) *Streaming in the Primary School*. Slough:NFER

Bar-Tal, D. et al, (1981) Teachers' reactions to attributions of ability and effort and their predictions of students' reactions, *Educational Psychology, 1(3)*, 231-241

Bassey, Michael (1999) *Case study research in educational settings,* Buckingham: Open University Press

Benenson, J. & Dweck, C. (1986) The development of trait explanations and self-evaluations in the academic and social domains, *Child Development* 57(5) 1179-1187

Benn, C and Chitty, C (1996) *Thirty years on: Is comprehensive education alive and well or struggling to survive?* London, David Fulton

BERA (2004) *Revised Ethical Guidelines for Educational Research*

Berends, M. (1995) Educational stratification and students' social bonding to school, *British Journal of Sociology of Education, 16(3)*, 327-51.

Black, P. et al (2002) *Working inside the black box: assessment for learning in the classroom*, nferNelson, London

Blackwell, L., Trzesniewski, K. & Dweck, C. (2007) Implicit theories of intelligence predict achievement across adolescent transition: a longitudinal study and an intervention, *Child Development* 78(1) 246-263

Blatchford, P. (2003) *The class size debate*, OUP

Boaler, J. (1997) *Experiencing school mathematics: teaching styles, sex and setting*. Buckingham: Open University Press.

Boaler, J. (1997a) Setting, social class and the survival of the quickest, *British Educational Research Journal*, 23, 575-595.

Boaler, J. (1997b) When even the winners are losers: evaluating the experiences of 'top set' students, *Journal of Curriculum Studies*, 29, 165-182

Boaler, J. (1999) Participation, knowledge and beliefs: a community perspective on mathematics and learning, *Educational studies in mathematics* 4(93) 259-281

Boaler, J. (2000) Exploring situated insights into research and learning, *Journal for mathematics education* 31(1) 113-119

Boaler, J. (2002a) Paying the price for "sugar and spice": shifting the analytical lens in equity research, *mathematical thinking and learning* 4(2&3)127-144

Boaler, J. (2002b) The development of disciplinary relationships: knowledge, practice and identity in mathematics classroom, *For the learning of mathematics*, 22(1) 42-47

Boaler, J. (2006) How a detracked mathematics approach promoted respect, responsibility and high achievement, *Theory into practice*, 45(1) 40-46

Boaler, J., Wiliam, D., & Brown, M. (2000) Experiences of ability grouping – disaffection, polarisation and the construction of failure, *British Educational Research Journal*, 28(5), 6311-648.

British Psychological Society (1993) *Code of Conduct, Ethical Principles & Guidelines*

Brophy, J. (1986) Teacher influences on student achievement, *American Psychologist*, 41(10) 1069-1077

Burgess, R.G. (1983) *Experiencing comprehensive education: A study of Bishop McGregor School*. London: Methuen

Burgess, S. et al (2004) Girls rock, boys roll: an analysis of the age 14-16 gender gap in English schools, *Scottish Journal of Political Economy*, 51(2) 209-229

Byrne, B M (1988) Adolescent self-concept, ability grouping and social comparison: re-examining academic track differences in high school, *Youth and Society, 20*, 46-67.

Byrne, B M (1990) Self-Concept and Academic Achievement: Investigating Their Importance as Discriminators of Academic Track Membership in High School, *Canadian Journal of Education / Revue canadienne de l'éducation*, Vol. 15, No. 2, 173-182

Byrne, B. & Shavelson, R. (1996) On the structure of social self-concept for pre-early and late adolescents: a test of the Shavelson, Hubner and Stanton (1976) model, *Journal of personality and social psychology* 70 (3) 599-613

Callaghan, C. & Manstead, A. (1983) Causal attributions for task performance: the effects of performance outcome and sex of subject, *British Journal of Educational Psychology* 53 14-23

Ceci, S.J. (1990), *On intelligence.....more or less: A biological treatise on intellectual development*. Englewood Cliffs, New Jersey: Prentice Hall.

Chapman, J.W. (1988) Learning disabled children's self-concepts. *Review of educational research, 58*, 347-371

Charmaz, K. (2006) *Constructing Grounded Theory*, London: Sage

Clifford, M. (1986) the comparative effects of strategy and effort attributions, *British Journal of Educational Psychology*, 56 75-83

Cognitive Abilities Test Administration Manual (1986) NfER-Nelson

Cohen, L., Manion, L. & Morrison, K. (2000) *Research Methods in Education (5th edition)*, London: RoutledgeFalmer

Condry, J. (1978) The role of incentives in socialization, in Lepper, M. & Greene, D. (eds) *The Hidden Costs of Reward*, New Jersey, Lawrence Erlbaum

Condry, J. & Chambers, J. (1978) Intrinsic motivation and the process of learning in Lepper, M. & Greene, D. (eds) *The Hidden Costs of Reward*, New Jersey, Lawrence Erlbaum

Cooper, P. & McIntyre, D. (1993), Commonality in teachers' and pupils' perceptions of effective classroom learning, *British Journal of Educational Psychology*, 63381-399

Crocker, J., Major, B. & Steele, C. (1998) Social Stigma in *The Handbook of Social Psychology*, Gilbert, D. et al (eds) New York: OUP

Deci, E. (1978) Applications of research on the effect of rewards in Lepper, M. & Greene, D. (eds) *The Hidden Costs of Reward*, New Jersey, Lawrence Erlbaum

Department for Education and Employment (DfEE) (1997) *Excellence in Schools* (Cm.3681) London: HMSO

Department for Education and Employment and Qualifications and Curriculum Authority (1999) *The National Curriculum.* London: DfEE/QCA.

Dweck, C. (1975) The role of expectations and attributions in the alleviation of learned helplessness, *Journal of personality and social psychology*, 31(4) 674-685

Dweck, C. (1986) Motivational Processes affecting learning, *American Psychologist* 41(10) 1040-1048

Dweck, C. & Reppucci, D. (1973) Learned Helplessness and reinforcement responsibility in children. *Personality and social psychology* 25(1) 109-116

Durkin, K. (1995) *Developmental Social Psychology*, Cambridge: Blackwell

Education Act (1944)

Education Reform Act (1988) www.opsi.gov.uk

Egan, O. & Archer, P. (1985) The accuracy of Teachers' ratings of ability: a regression model. *American educational research journal* 22(1) 25-34

Erlandson, D. et al, (1993) *Doing Naturalistic Enquiry*, Newbury Park: Sage

Feuerstein, R., Rand, Y., Hoffman, M.B. & Miller, R. (1980), *Instrumental enrichment: An intervention program for cognitive modifiability.* Baltimore, MD: University Park.

Feyerabend, P. (1975) *Against Method*, London: Verso

Field, A. (2005) *Discovering Statistics using SPSS*, London: Sage

Field, A. & Hole, G. (2003) *How to Design and Report Experiments*, London: Sage

Findlay, W., & Bryan, M. (1975) The pros and cons of ability grouping. *Phi Delta Kappan, 66,* 12.

Fiskse, S. (1998) Stereotyping, prejudice and discrimination, in *The Handbook of Social Psychology*, Gilbert, D. et al (eds) New York: OUP

Flanders, G. (1970) *Analyzing Teaching Behavior*, New York: Wiley

Fogelman, K. (1983) Ability grouping in the Secondary School In K. Fogelman (Ed) *Growing up in Great Britain, Papers from the National Child Development Study*, Macmillan for NCB.

Fogelman, K., Essen, J., & Tibbenham, A. (1978) Ability grouping in secondary schools and attainment, *Educational studies, 4(3),* 201-212.

Galton, M., Gray, J. & Ruddick, J. (1999), *The impact of school transitions and transfers on pupil progress and attainment*, Nottingham: DfEE

Gamoran, A. (1986) Instructional and institutional effects of ability grouping, *Sociology of Education, 59(4),* 185-198.

Gamoran, A. (1987) Organization, instruction and the effects on ability grouping: Comment on Slavin's "best evidence synthesis", *Review of educational research* 57(3) 341-345

Gamoran, A. (1989) Measuring curriculum differentiation, *American Journal of Education,* 97

Gamoran, A. (1993) Alternative uses of ability grouping in secondary schools: can we bring high-quality instruction to low ability classes? *American Journal of Education* 102(1) 1-22

Gamoran, A. (2001) American schooling and educational inequality: a forecast for the 21st century, *Sociology of education* 74 135-153

Gamoran, A. & Berends, M. (1987) The effects of stratification in secondary schools: Synthesis of survey and ethnographic research. *Review of Educational Research, 57,* 415-435.

Gamoran, A., Nystrand, M., Berends, M. & LePore, C. (1995) An organisational analysis of the effects of ability grouping, *American Educational Research Journal,* 32(4)

Gardner, H. (1993) *Frames of mind: The theory of multiple intelligences.* New York: Basic Books

Gardner, H. (1999), Are there additional intelligences? The case for naturalist, spiritual and existential intelligences. In J. Kane (Ed), *Education, information and transformation.* Englewood Cliffs, NJ: Prentice Hall

Glaser, B. & Strauss, A. (1967) *The Discovery of Grounded Theory,* Chicago: Aldine

Goleman, D. (1996) *Emotional intelligence: Why it can matter more than IQ* London: Bloomsbury

Good, T.L. and Brophy, J.E. (1991) (5th Edn.) *Looking in Classrooms* New York, Harper Collins

Gregory, R. (1984) Streaming, setting and mixed ability grouping in primary and secondary schools: some research findings *Educational Studies* 10(3) 209-226

Griffiths, M, (1993) Self-identity and self-esteem: achieving equality in education, *Oxford Review of Education,* Vol. 19, No. 3, 301

Hacker, R. & Rowe, M. (1993) A study of the effects of an organisation change from streamed to mixed-ability classes upon science classroom instruction, *Journal of Research in Science Teaching, 30(3),* 223-231.

Hacker, R.G., Rowe, M.J., & Evans, R.D. (1991) The influences of ability groupings for secondary science lessons upon classroom processes. Part 1: homogeneous groupings (Science Education Notes) *School Science Review, 73(262)* 125-9.

Hacker, R.G., Rowe, M.J., & Evans, R.D. (1992) The influences of ability groupings for secondary science lessons upon classroom processes. Part 2: heterogeneous groupings (Science Education Notes) *School Science Review, 73(264)* 119-123.

Hadow Report. Great Britain. Board of Education. Consultative Committee on the Primary School (1926) *The Education of the Adolescent* London: HMSO.

Hall, S. (1997) The Problem with differentiation, *School Science Review* 78(284) 95-98

Hallam, S. (2002) *Ability Grouping in Schools: a Literature Review* Institute of Education, University of London

Hallam, S & Deathe K, (2002) Ability Grouping: year group differences in self-concept and attitudes of secondary school pupils, *Westminster Studies in Education,* Vol. 25, No. 1, 2002

Hallam, S. & Ireson, J. (2003) Secondary School Teachers' Attitudes to and Beliefs about Ability Grouping, *British Journal of Educational Psychology,* 73, 343-356.

Hallam, S. & Ireson, J. (2005) Secondary school teachers' pedagogic practices when teaching mixed and structured ability classes, Research Papers in Education, 20(1), 3 – 24

Hallam, S., Ireson, J. & Davies, J., (2004) Primary School Pupils' Experience of Different Types of Grouping in Schools, *British Educational Research Journal*, 30(4), 515-534.

Hallinan, M. (1994) Tracking: From theory to practice, *Sociology of Education*, 67, no 2

Hallinan, M., & Sorensen, A. (1985) Ability grouping and student friendships. *American Educational Research Journal, 22, 485-499.*

Hallinan, M. & Williams, R. (1990) Students' characteristics and the Peer-influence process. *Sociology of Education* 63(2) 122-132

Hammersley, M. (ed) (1986) *Controversies in classroom research : a reader* Milton Keynes : Open University Press

Hansen, D. (1989) Lesson evading and dissembling: ego strategies in the classroom *American Journal of Education* 97(2) 184-208

Hargie, O., Saunders, C. & Dickson, D. (1981, 2nd ed 1994) *Social skills and Interpersonal Communication*, London: Routledge

Hargreaves, D.H. (1967) *Social relations in a Secondary school*, London: Tinling.

Harlen, W. & Malcolm, H. (1997) *Setting and streaming: a research review* (Using Research Series 18). Edinburgh: SCRE

Hart, C, (1998) *Doing a literature review*, London: Sage

Hart, S (1998) A sorry tail: ability, pedagogy and educational reform, *British Journal of Educational Studies*, 46, No. 2, 153-168

Heyman, G. & Dweck, C. (1998) Children's thinking about traits: Implications for judgements of self and others, *Child Development*, 69(2) 391-403

Hogg, M. & Terry, D. (2000) Social identity and self-categorization processes in organizational contexts *The academy of management review* 25(1) 121-140

Hornsey, M. & Jetten, J. (2004) The individual within the group: balancing the need to belong with the need to be different, *Personality and Social Psychology Review* 8(3) 248-264

Howard, J. (2000) Social psychology of identities, *Annual Review of Sociology*, 26 367-393

Hussey, T. & Smith, P. (2002) The trouble with learning outcomes, *Learning in Higher Education* 3(3) 220-233

Ireson, J. & Hallam, S. (2001) *Ability Grouping in Education*. London: Sage Publications

Ireson, J. & Hallam, S. (2005) Pupils' liking for school: Ability grouping, self-concept and perceptions of teaching, *British Journal of Educational Psychology*, 75 297-311

Ireson J, Hallam S & Hurley C, (2005) What are the effects of ability grouping on GCSE attainment? *British Educational Research Journal* Vol. 31, No. 4, 443-458

Ireson, J., Hallam, S., & Plewis, I. (2001) Ability grouping in secondary schools: Effects on pupils' self-concepts, *British Journal of Educational Psychology, 71*, 315-326.

Ireson, J. Hallam, S., Hack, S., Clark, H. & Plewis, I. (2002) Ability Grouping in English Secondary Schools: Effects on Attainment in English, Mathematics and Science, *Educational Research and Evaluation*, 8(3), 299-318.

Ireson, J., Hallam, S. & Hurley, C. (2005) *What Are the Effects of Ability Grouping on GCSE Attainment?* British Educational Research Journal, 31(4). 443-458

Ireson, J., Hallam, S. & Hurley, C. (in press) *Pupils' relationships with school: does ability grouping make a difference?* British Journal of Educational Psychology

Ireson, J., Hallam, S., & Plewis, I. (2001) Ability grouping in secondary schools: Effects on pupils' self-concepts, *British Journal of Educational Psychology, 71*, 315-326.

Jenkins, R. (2008) *Social Identity* 3rd Edition, Routledge: Oxford

Jesson, D. (2000) *Further Evidence on Comparative GCSE performance between selective and non-selective schools and LEAs.* Paper presented at the NUT Secondary Education Conference, March.

Kamins, M. & Dweck, C. (1999) Person versus process praise and criticism: implications for contingent self-worth and coping, *Developmental Psychology* 35(3) 833-847

Kapferer, J. (1981) Socialization and the symbolic order of school, *Anthropology and Education Quarterly*, 12(4) 258-274

Kelly, A. et al (1985) Traditionalists and Trendies: teachers' attitudes to educational issues, *British Educational Research Journal*, Vol. 11, No. 2

Kerckhoff, A. (1986) Effects of ability grouping in British secondary schools. *American Sociological Review, 51,* 842-858

Kulik, C.-L.C., & Kulik, J.A. (1982) The effects of ability grouping on secondary school students: A meta-analysis of evaluation findings. *American Educational Research Journal, 19,* 415-428.

Lacey, C. (1970) *Hightown Grammar* (Manchester, Manchester University Press)

Lacey, C. (1974) Destreaming in a "pressured" academic environment, in J. Eggleston (Ed) *Contemporary research in the sociology of education.* London: Methuen

Lawrence, D. (1981) The development of a self-esteem questionnaire. *British Journal of Educational Psychology,* 51(2), 245-251.

Lawrence, D. (1996) *Enhancing Self esteem in the classroom.* London: Paul Chapman

Levy, S. & Dweck, C. (1999) The impact of children's static versus dynamic conceptions of people on stereotype formation, *Child Development* 70(5) 1163-1180

Levy, S., Plaks, J., Hong, Y., Chui, C. & Dweck, C. (2001) Static versus dynamic theories and the perception of groups: different routes to different destinations, *Personality and social psychology review* 5(2) 156-168

Linchevski, L. & Kutscher, B. (1998) Tell Me with Whom You're Learning, and I'll Tell You How Much You've Learned: Mixed-Ability versus Same-Ability Grouping in Mathematics, *Journal for Research in Mathematics Education,* Vol. 29, No. 5 pp. 533- 554

Lockwood, A., (1996) *Tracking: conflicts and resolution,* California: Corwin Press

Lomax, H. & Casey, N. (1998) Recording Social Life: Reflexivity and video methodology, *Sociological research online* 3(2) www.socresonline.org.uk

Marsh, H. W. (1987) The big-fish-little-pond effect on academic self-concept, *Journal of Educational Psychology*, 79, 280-295

Marsh, H.W. (1990) *Self Description Questionnaire Manual*, Sydney, University of Western Sydney.

Mayall, B. (1996) *Children, Health and Social Order* Buckingham: OUP,

Measor, L. and Woods, P., (1984) *Pupil perspectives on transfer to a comprehensive*, Buckingham: OUP

Mehan, H., Hubbard, L., Villanueva, I. & Lintz, A. (1996) *Constructing School Success: the consequences of un-tracking for low achieving students*, Cambridge University Press,

Millar, C. & Kaiser, C. (2001) A theoretical perspective on coping with stigma, *Journal of Social Issues* 57(1) 73-92

Muijs, D. (2004) *Doing quantitative research in education*, London: Sage

Murdoch, A. (1986) 42 children and their transfer to secondary school. In M. Youngman(ed) *Mid-schooling transfer: problems and proposals*, Windsor: nferNelson

Nardi, E & Steward, S. (2003) Is Mathematics T.I.R.E.D.? A profile of quiet disaffection in the classroom. *British Educational Research Journal* 29(3) 345-367

Nesdale, D. & Flesser, D. (2001) Social Identity and the development of children's group attitudes, *Child Development* 72(2) 506-517

Newbold, D. (1977) *Ability grouping: the Banbury Enquiry.* Slough: National Foundation for Educational Research Publishing Company Ltd.

Nisbet, J. & Entwistle, N. (1966) *Age of transfer to secondary education,* London: University of London Press

Norwood Report (1943) Curriculum and Examinations in Secondary Schools, Board of Education, London HMSO

Nystrand, M. (1975) The Politics of Rank Ordering, *The English Journal,* vol 64, no 3

Oakes, J. (1985, 2nd ed 2005) *Keeping track: How schools structure inequality.* New Haven: Yale University Press.

Oakes, J., Gamoran, A., & Page, R. (1991) Curriculum differentiation: Opportunities, consequences and meanings. In P. Jackson (Ed) *Handbook of research on curriculum.* New York: Macmillan.

Oakes, P. et al, (1994) *Stereotyping and social reality,* Cambridge: Blackwell

Ofsted (1998) *Setting in Primary Schools: a report from the Office of her Majesty's Chief Inspector of Schools.* London: Office for Standards in Education.

Ofsted (2009) *The framework for school inspection,* London: Office for Standards in Education.

Oyserman,D. & Swim, J. (2001) *Stigma: an insider's view,* Journal of Social Issues 57(1) 1-14

Pallas, A.M., Entwisle, D.R., Alexander, K.L. & Stluka, M.F. (1994) Ability-group effects: Instructional, social, or institutional? *Sociology of Education, 67(1),* 27-46

Pilling, D. & Pringle, M.K. (1978) *Controversial Issues in Child Development*, London: Elek

Plowden Report - DES/CACE (1967) *Children and their primary schools*. London: HMSO

Polanyi, M. (1958) *Personal Knowledge*, Chicago: University of Chicago Press

Postlethwaite K., & Denton, C. (1978) *Streams for the future: The long-term effects of early streaming and non-streaming - the final report of the Banbury Enquiry*. Banbury: Pubansco Publications

Raviv, D., Bar-Tal, D., Raviv, A. & Levit, R. (1983) Students' reactions to attributions of ability and effort, *British Journal of Educational Psychology, 53*, 1-13

Reay, D. (1998) Setting the agenda: the growing impact of market forces on pupil grouping in British secondary schooling, *Journal of Curriculum Studies* 30(5) 545-558

Robson, C. (2002) *Real World Research (2nd edition)*, Oxford: Blackwell

Rosenbaum, J. (1976) *Making Inequality: The hidden curriculum of high school tracking*, New York: Wiley

Rosenthal, R. & Jackson, L. (1968) *Pygmalion in the classroom*, Holt Rinehart & Winston

Schwartz, F. (1981) Supporting or subverting learning: Peer groups patterns in four tracked schools. *Anthropology and Education Quarterly*, 12, 99-121.

Scott, D. & Usher, R. (eds) (1996) *Understanding educational research* London: Routledge

Slavin, R.E. (1987) Ability grouping and student achievement in elementary schools: a best-evidence synthesis. *Review of educational research, 57(3)*, 293-336.

Slavin, R. (1987) Ability grouping in Elementary Schools: do we really know nothing until we know everything? *Review of Educational Research* 57(3) 347-350

Slavin, R. (1990) Achievement effects of ability grouping in secondary schools: a best-evidence synthesis, *Review of Educational Research*, 60(3) 471-499

Slavin, R. (1993) Ability grouping in the middle grades: achievement effects and alternatives, *The Elementary School Journal* 93(5) 535-552

Slavin, R. & Karweit, N. (1985) Effects of whole class, ability grouped and individualised instruction on mathematics achievement, *American Educational Research Journal, 22(3)*, 351-67.

Smiley, A. & Dweck, C. (1994) Individual differences in Achievement goals among young children, *Child Development*, 65(6) 1723-1743

Speer, S. & Hutchby, I. (2003) From Ethics to Analytics: Aspects of Participants' Orientations to the presence and relevance of recording devices, *Sociology* 37(2) 315-337

Sternberg, R.J. (1984) Toward a triarchic theory of human intelligence, *Behavioural and Brain Sciences, 7*, 269-315.

Sternberg, R.J. & Weil, E.M. (1980), *An aptitude-strategy interaction in linear syllogistic reasoning.* Journal of Educational Psychology, 72, 226-34.

Sukhnandan, L., & Lee, B. (1998) *Streaming, setting and grouping by ability* (Slough, National Foundation for Educational Research).

Tajfel, H. (1981) *Human groups and social categories*, New York: Cambridge University Press

Taylor, N. (1993) Ability grouping and its effect on pupil behaviour: A case study of a Midlands comprehensive school, *Education Today*, 43(2), 14-17.

Tibbenham, A., Essen, J., & Fogelman, K. (1978) Ability-grouping and school characteristics, *British Journal of Educational Studies, 26(1)*, 8-23.

Troman, G. (1988) Getting it right: selection and setting in a 9-13 years middle school, *British Journal of sociology of education* 9(4) 403-422

Turnbaugh, A. (1996) *Tracking: conflicts and resolutions*. Controversial Issues in Education, Corwin

Turney, A.H. (1931) The status of ability grouping. *Educational Administration and supervision, 17*, 21-42, 110-127.

Van Oudenhoven, J. et al (1983) Effects of individualised feedback and instructions on effort attributions, ability attributions and spelling achievement, *Educational Studies* 9(2) 105- 113

Venkatakrishnan, H. & Wiliam, D. (2003) Tracking and mixed-ability grouping in secondary school mathematics classrooms: a case study, *British Educational Research Journal*, 29(2), 189-204.

Verkuyten, M. (2002) Making teachers accountable for students' disruptive classroom behaviour, *British Journal of Sociology of Education*, 23(1) 107-122

Walford, G. (2002) 'Redefining School Effectiveness', *International Journal of Research & Method in Education*,25:1,47 – 58

Walker, R. (ed) (1985) *Applied qualitative research*, Aldershot: Gower

Wiliam, D. (2001) Reliability, validity and all that jazz, *Education 3-13*, 29(3) 17-21

Wiliam, D. & Bartholomew, H. (2004) It's Not Which School but Which Set You're in That Matters: The Influence of Ability Grouping Practices on Student Progress in Mathematics *British Educational Research Journal*, Vol. 30, No. 2

Woods, P. (1978) Negotiating the demands of schoolwork, *Curriculum Studies* 10(4) 309-327

Youngman, M. (ed) (1986), *Mid-schooling transfer: problems and proposals*, Windsor: NFER-Nelson

Appendix 1: Distributions of KS3 scores

KS3 English fractional level 2002 cohort

KS3 English fractional levels 2003 cohort

KS3 Maths fractional level 2002 cohort

KS3 Maths fractional level 2003 cohort

KS3 Science fractional level 2002 cohort

KS3 Science fractional levels 2003 cohort
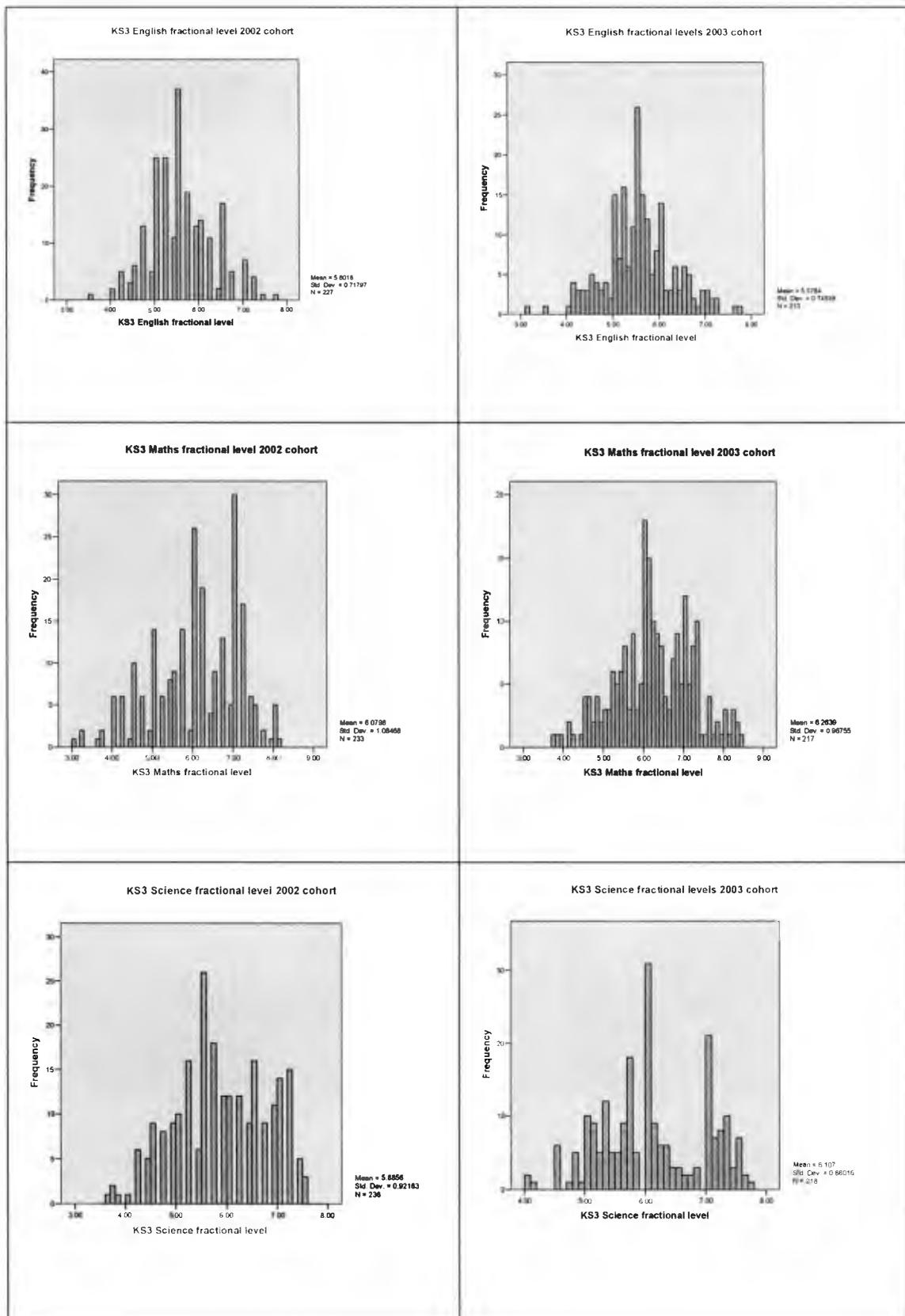
Appendix 2: Year 6 Pupil Questionnaire

Name................................   male/female

School Transfer Questionnaire

1.   What is your favourite subject at school? Explain why you like this subject.

My favourite subject is .... because ....

....

....

2.   What subject do you like the least? Explain why you don't like this subject.

I don't like............................

because..

....

Complete questions 3 to 8 by underlining ONE answer for each question

3.   How would you feel if you had worked very hard for a test but got a poor mark?

            Sad   Happy   Don't care   Angry   Fed up

4.   When you take a test how do you feel?

Confident   Not bothered   Nervous   Scared   Calm   Enthusiastic

5. Where do you think you would come if you did the same test as the whole of your class?
                        (a) near the top of the class
                        (b) near the bottom of the class
                        (c) in the middle

6.   When you get homework do you
                        (a) complete it as soon as possible
                        (b) leave it till the last moment
                        (c) forget about it completely

7.   What are your views on homework?
                        (a) parents and teachers expect you to do it
                        (b) if you don't do it you get in trouble
                        (c) it helps you to learn and understand your work

8.   When you do work in class do you
                        (a) like to include extra things to make it really good
                        (b) finish everything you have to do
                        (c) often not get everything finished properly

9. When you start at St Joseph's you will be placed in either a top, middle or bottom band class. Which band do you hope to be in? Explain why

I hope to be in .... band because

....

....

....

10.   Do you think it is a good idea to have top, middle and bottom band classes?

Yes or No

because...

....

....

Tick one box ONLY to answer each question in the following table
.+

	YES	NO	DON'T KNOW
Do you think that your parents usually like to hear about your ideas?			
Do you often feel lonely at school?			
Do other children often get fed up with you and stop being friends with you?			
Do you like outdoor games?			
Do you think that other students often dislike you?			
When you have to say things in front of teachers, do you usually feel shy?			
Do you like writing stories or doing creative writing?			
Do you often feel sad because you have nobody to play with at school?			
Are you good at mathematics?			
Are there lots of things about yourself you would like to change?			
When you have to say things in front of other students, do you usually feel foolish or embarrassed?			
Do you find it difficult to do things like technology or other crafts?			
When you want to tell a teacher something, do you usually feel foolish?			
Do you often have to find new friends because your old friends are playing with someone else?			
Do you usually feel foolish or embarrassed when you talk to your parents?			
Do other people often think that you tell lies?			

Appendix 3: Lawrence Self Esteem Questionnaire (1996)

Secondary School Version	YES	NO	DON'T KNOW
Do you think that your parents usually like to hear about your ideas?			
Do you often feel lonely at school?			
Do other children often get fed up with you and stop being friends with you?			
Do you like outdoor games?			
Do you think that other students often dislike you?			
When you have to say things in front of teachers, do you usually feel shy?			
Do you like writing stories or doing creative writing?			
Do you often feel sad because you have nobody to play with at school?			
Are you good at mathematics?			
Are there lots of things about yourself you would like to change?			
When you have to say things in front of other students, do you usually feel foolish?			
Do you find it difficult to do things like woodwork or other crafts?			
When you want to tell a teacher something, do you usually feel foolish?			
Do you often have to find new friends because your old friends are playing with someone else?			
Do you usually feel foolish when you talk to your parents?			
Do other people often think that you tell lies?			

Marking
- The higher the score, the higher the child's self-esteem:
- No answers score 2 pts (except for questions 4, 7, 9 & 12, which do not count).
- Don't know answers score 1 pt.
- Mean score for "secondary version" is 18 pts.
- The standard deviation (S.D.) on both scales is 4 pts.
- This means that if a child scores less than 4pts (1 S.D.) above or below the mean, they have neither significantly above or below average self-esteem.
- The greater the number of standard deviations in the score, the greater the overall problem (in the case of negative self-esteem).

Appendix 4: Pupil interview schedule November 2001

Topic	Examples of questions/prompts from transcripts
Transfer from primary school	What do you miss about primary school? Do you miss your friends - are they in different classes? What is the biggest difference between primary and secondary school? What's your favourite lesson?
Class placement	On the first day how did you feel when you found out which class you were in? Was it the class you thought you were going to be in? Why did you think you'd be in middle? Is it the class you wanted to be in?
Level of work	Have you found the work ok? Do you find the work alright - did you think the work might be too hard in top? Any subjects where you need more help? Are there any subjects that you think you're good at and you cope easily? Is kind of work ok, too easy or too difficult? You said the work was easy for a middle band class... Any subjects you'd be in top for? Are there some subjects you think you could do harder work?
Differences between bands	What are the differences between middle and top? Do you think there is more bad behaviour in the middle band? What do you think the differences in work are between the bands? What about differences between top and middle band? Is behaviour different in different classes? Do you think the top band do different work to you? Do you think the top band do more difficult work?
Moving up	How would you feel if you got moved up? Do you think you could cope with the work?
Moving down	What about moving down? How would you feel if you had to go down to middle? What about the kind of work? How would you feel if you didn't do well and you got moved down?
Fairness	How would you feel if you were mixed with top bands? Do you think the banding system is fair? Are bands a good idea?

Appendix 5: Pupil interview schedule June 2002

Topic	Examples of questions/prompts from transcripts
Involvement with school	Have you got involved in extra curricular activities? Tell me a bit about what you've been doing this year have you joined in any of the activities around the school Did you have responsible things to do at primary? Have any of you got involved with clubs activities etc?
identity	Do you feel you belong to (secondary school) now? When you are in the school tutor group or teaching class? And you'd been at those schools for a long time hadn't you? So you kind of feel you belong to a school after a while. You've been here for a year now so do you feel you belong to this school as much as you belonged to your old one or not as much yet? How much do you feel like you belong to St Jo's rather than primary? Do you identify most with teaching group or tutor group?
Level of work	How do you find the work? How does work compare to what you did at primary school? Have you found the work alright? Do you get any special help?
Differences between bands: work and behaviour	Is work in middle band different? What starts you off behaving badly? What about the behaviour in the different classes? Other differences between middle and top? So you think you got put in middle band in part because of your behaviour?
Changing bands Why did it happen	Why do you think you got moved down/up? Do you think if you'd done your homework you might still be in top band? And did you realise if you didn't do well you'd get moved down? How did you find out you were going to move? Were you expecting to be moved up? Were you happy with the class you were in? Did anyone ever ask you if you wanted to move up? Did anybody ever tell you why you were moved up? Would you rather have stayed in one class through the year and then maybe moved at the end?
Changing bands work	And what about the work in the middle band was it alright or was it too easy in some subjects or Do you think you have to work faster in the top band or is it about the same? Were you worried you wouldn't be able to cope if you moved up?
Changing bands friends	And did you make friends? So when you did move did you make friends in your new class or not really? Do you still feel like an odd one out in there?
Changing bands behaviour	How about the behaviour do you think top band are better than middle? What kind of behaviour is different?

Appendix 6: Teacher interview schedule

Video process	How did you feel about being videoed/ Did it affect how you planned your lesson? Did it affect your behaviour? Do you think it affected your pupils behaviour?
Description of classes	Imagine you are going to be handing these classes over to another teacher for a few weeks. How would you describe each class? Describe some of the 'characters' in each class.
Motivation of class	Look at the motivation scale Where would you place the pupils in your classes on this scale?
Relationship with class	How do you feel when you teach these classes? (e.g. happy, relaxed,, anxious…) How do you feel towards the class? (e.g. like them, wish you didn't have to teach them…)
Achievement	Look at the achievement scale. How responsible do you feel for the achievement of your classes? On the scale where would you put the dividing point for your top and middle band classes and for an ideal class?
Behaviour	Look at the behaviour scale. How responsible do you feel for the behaviour of your classes? On the scale where would you put the dividing point for your top and middle band classes and for an ideal class? What kinds of behaviours cause problems in your classes?
Lesson content	What factors did you take into account when planning these lessons? Did your lesson go according to plan? If not, why not? Did your pupils do what you expected them to do? How do you judge pupils responses? How do you judge the overall success of lessons?
Banding	Describe a typical top and middle band class in terms of behaviour, attitude to work and any other factors, e.g. relationships within the class. Describe a typical top or middle band pupil. Do you think the class you were observed with were typical examples of their bands?

Motivation scale

HIGHLY MOTIVATED	COMPLIANT AND/OR CO-OPERATIVE	PASSIVE RESISTANCE	BATTLE ZONE
LEARNING IS A SHARED ENTERPRISE	GET ON WITH WHAT HAS TO BE DONE	GO SLOW AND USE WORK AVOIDANCE STRATEGIES	YOU MAKE ME WORK! YOU MAKE ME BEHAVE!

Achievement scale

Responsibility for pupils' achievement

100%   ←--→   100%
teacher effort   pupil effort

Behaviour scale

Responsibility for pupils' behaviour

100%   ←--→   100%
teacher   pupil
responsibility   responsibility
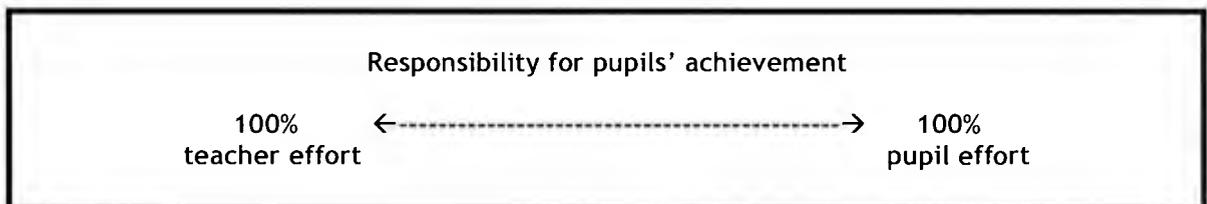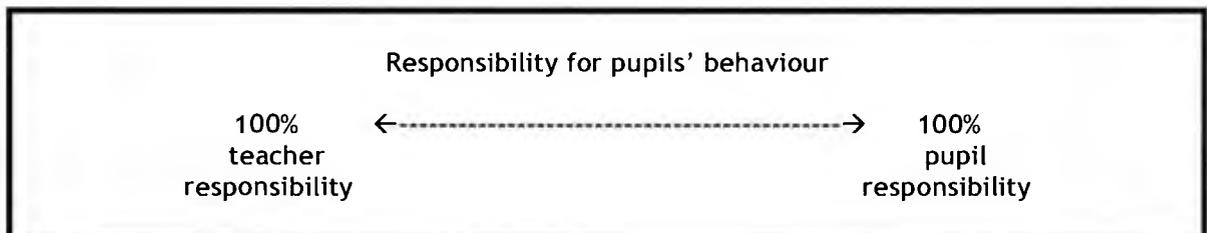
Appendix 7: Analysis of variance in Year 7 baseline factors for whole cohorts 2001, 2002, 2003

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
CATS total score	Between Groups	46.426	2	23.213	.193	.824
	Within Groups	81843.253	681	120.181		
	Total	81889.678	683			
KS2 English fractional level	Between Groups	2.069	2	1.035	2.650	.071
	Within Groups	259.282	664	.390		
	Total	261.351	666			
KS2 Maths fractional level	Between Groups	1.366	2	.683	1.329	.265
	Within Groups	342.919	667	.514		
	Total	344.285	669			
KS2 science fractional level	Between Groups	.825	2	.413	1.309	.271
	Within Groups	213.077	676	.315		
	Total	213.902	678			
KS2 average fractional level	Between Groups	1.496	2	.748	2.435	.088
	Within Groups	201.228	655	.307		
	Total	202.724	657			
CATS verbal score	Between Groups	336.575	2	168.288	1.055	.349
	Within Groups	108489.1	680	159.543		
	Total	108825.7	682			
CATS non-verbal score	Between Groups	124.172	2	62.086	.423	.656
	Within Groups	99908.627	680	146.924		
	Total	100032.8	682			
CATS quantitative score	Between Groups	92.983	2	46.492	.294	.746
	Within Groups	107517.3	679	158.347		
	Total	107610.3	681			
Behaviour category Year 6	Between Groups	1.846	2	.923	.934	.394
	Within Groups	587.380	594	.989		
	Total	589.226	596			
Effort score Primary Year 6	Between Groups	5.755	2	2.878	2.486	.084
	Within Groups	686.545	593	1.158		
	Total	692.300	595			

Appendix 8: Criteria for inclusion in identified family and health issues category

Pupils are identified as having family or health issues if there is reference in the notes from primary school to

- family issues
- health problems
- attendance problems (which are assumed to be linked either to family or health problems with this age group)

Note: Pupils with references to SEN without other issues are not included.

In the following examples underlining indicates the part(s) of statements that triggered inclusion.

Some clearly fit these criteria, for example:

- Mother not supportive maybe at risk no evidence. Attendance
- Keep away from A. (parental request) clinically depressed

Others are included because of what seems to be implied. For example:

- Delightful - V. supportive grandma   (involvement of grandma opens questions about parents' situation - could be working, could be some other issue, and reference to supportiveness suggests support is needed for some reason.)
- Single parent/underachiever/gets into scrapes   (single parent not in itself necessarily an issue but the fact that primary teacher mentions it suggests that there may be concerns)

Examples of comments included in family and health issues category

1. SEN elective mute
2. Gifted artistically/Needs a good feed
3. SEN - 2 really improved/absenteeism problem
4. Adopted, erratic, friendship issues - watch.
5. Poor ability/ lovely/ Difficulty from mum/Parents indulge
6. Gorgeous/v quiet/missed lots of school/attendance
7. V. babyish/immature/mother babies him
8. Mum ill - be watchful
9. Watch the children/parental attitude?

10. Underachiever <u>one false eye</u>/sit at front V bright
11. <u>Attendance record/Hay fever</u>
12. Bright. <u>Watch attendance - responsible at home</u>. V/A
13. Capable/<u>Father died couple yrs ago</u>. Musical /Talented computer
14. <u>Hearing problem</u>
15. Read SEN <u>Special Needs Family</u>
16. Careful - <u>parents/ problem concerning race</u>.
17. Nice girl - <u>lost lots of schooling/tummy</u>
18. <u>V. deprived - Soc. Services</u>
19. lazy very <u>mixed background; dad murdered mum/lives with g/parents</u>
20. No big problem/<u>house full of boys/looking after self?</u>

Examples of comments not included in family and health issues category

1. Head girl, instigator of trouble with girls, doesn't admit to things.
2. Able, lovely girl.
3. Bright girl, doesn't have to work too hard, doesn't put in the effort,
4. Can wind people up.
5. Performed well in SATs but doesn't normally.
6. Very bright and must be kept busy or he will get into mischief
7. Very bright, sporty, slight cruel steak.
8. No problem. Lovely
9. Jack the lad.
10. Clever boy, quite quiet, not popular
11. Outgoing personality likes PE, nice girl can be loud,
12. Nice, day dreamer.
13. SEN - lovely girl. Had a reader for SATS. Poor literacy
14. Academically poor, problems with literacy. Has been assessed at the dyslexic institute
15. Little Miss Popular/v. pretty - knows it
16. Bully - potential stole from desk   C of E. No problem
17. Strange/fussy/doesn't mix to well
18. Poor ability, shy
19. Tinker - on edge, may be liar
20. Effeminate

Appendix 9: Non-parametric comparison of means

Figure 11.4 Comparison of means for CATs tests for borderline groups

Total CATS score		Above borderline		Below borderline		Comparison of means		
		mean	S.E.	mean	S.E.	U	p (2-tailed)	r
Top/middle borderline	2001 banded cohort	103.50	1.213	98.50	1.224	112.50	.011	.40
	2003 mixed ability cohort	100.20	1.391	99.35	1.091	171.00	.607	.08
Middle/lower borderline	2001 banded cohort	87.60	2.227	79.40	2.007	21.00	.016	.52
	2003 mixed ability cohort	85.60	1.950	83.80	2.026	38.50	.604	.12

Total CATS score		Above borderline		Below borderline		Comparison of means		
		mean	S.E.	mean	S.E.	t(DF)	p (2-tailed)	r
Top/middle borderline	2001 banded cohort	103.50	1.213	98.50	1.224	t(38)=-2.902	.006	0.43
	2003 mixed ability cohort	100.20	1.391	99.35	1.091	t(36)=-.481	.634	0.08
Middle/lower borderline	2001 banded cohort	87.60	2.227	79.40	2.007	t(18)=-2.735	.014	0.54
	2003 mixed ability cohort	85.60	1.950	83.80	2.026	t(18)=-.640	.530	0.14

Figure 11.7 Comparison of means for pupils with very low ability

	2001 banded cohort		2003 mixed ability cohort		Comparison of means		
	Mean	S.E.	mean	S.E.	*t*(DF)	p (2-tailed)	r
KS2 Average fractional level	3.4396	.1230	3.4445	.23397	*t*(12)= -0.020	.984	0.00
Transfer to secondary school with banding (2001) or mixed ability (2003) at KS3							
Total CATS score	74.00	0.945	74.67	1.116	*t*(12)=-0.458	.655	0.01
KS3 Average fractional level	3.5725	.30182	4.6967	.22870	*t*(12)= -2.792	.016	0.62
Progression KS2 to KS3 Average fractional level	0.1329	.26216	1.2522	.17135	*t*(12)= -3.301	.006	0.69
Transition to setted system at KS4 for both cohorts							
GCSE average core subjects	2.2917	.19352	3.3056	.36111	*t*(12)= -2.653	.021	0.49

	2001 banded cohort		2003 mixed ability cohort		Comparison of means		
	Mean	S.E.	mean	S.E.	U	p (2-tailed)	r
KS2 Average fractional level	3.4396	.1230	3.4445	.23397	30.00	.143	0.34
Transfer to secondary school with banding (2001) or mixed ability (2003) at KS3							
Total CATS score	74.00	0.945	74.67	1.116	28.50	.182	0.26
KS3 Average fractional level	3.5725	.30182	4.6967	.22870	9.00	.001	0.69
Progression KS2 to KS3 Average fractional level	0.1329	.26216	1.2522	.17135	9.00	.001	0.69
Transition to setted system at KS4 for both cohorts							
GCSE average core subjects	2.2917	.19352	3.3056	.36111	21.50	.029	0.48

Figure 11.8 Comparison of means for pupils with vey high ability

	2001 banded cohort		2003 mixed ability cohort		Comparison of means (Mann-Whitney)		
	Mean	S.E.	mean	S.E.	U	p (2-tailed)	r
KS2 Average fractional level	5.3278	0.03889	5.5637	.09224	9.00	.610	0.60
Transfer to secondary school with banding (2001) or mixed ability (2003) at KS3							
Total CATS score	122.0	.856	121.0	.577	3.00	.067	0.21
KS3 Average fractional level	7.5133	.13877	7.6050	.11843	12.00	1.000	0.00
Progression KS2 to KS3 Average fractional level	2.1856	.11798	2.0413	.09805	7.00	.352	0.33
Transition to setted system at KS4 for both cohorts							
GCSE average core subjects	7.0556	.31525	7.7083	.29167	6.50	.257	0.38

	2001 banded cohort		2003 mixed ability cohort		Comparison of means		
	Mean	S.E.	mean	S.E.	t(DF)	p (2-tailed)	r
KS2 Average fractional level	5.3278	0.03889	5.5637	.09224	$t(8)= -2.693$	.027	0.68
Transfer to secondary school with banding (2001) or mixed ability (2003) at KS3							
Total CATS score	122.0	.856	121.0	.577	$t(8)= 0.859$	.415	0.29
KS3 Average fractional level	7.5133	.13877	7.6050	.11843	$t(8)= -0.465$	.654	0.16
Progression KS2 to KS3 Average fractional level	2.1856	.11798	2.0413	.09805	$t(8)= 0.866$	.412	0.29
Transition to setted system at KS4 for both cohorts							
GCSE average core subjects	7.0556	.31525	7.7083	.29167	$t(8)= -1.430$	.191	0.45