An investigation into the experiences of pupils in ability and mixed ability grouping in an independent secondary girls' school

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by

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Contents

Abstract

The focus of this research was an exploration of pupils' perceptions of their experiences in mixed ability and ability grouped lessons within a selective independent girls' secondary school in West London, which presents the case study for the research. Previous research into ability and mixed ability grouping has shown the area to be contentious, leading to different outcomes and recommendations. Also, there is limited research into this area within independent schools and looking at a range of curriculum areas, and these were the unique contributions that this study made.

For this Case Study research, data was gathered using questionnaires and focus groups. A total of 260 girls across years 8-11 (aged 12-16) completed a Likert scale questionnaire, which was analysed using the Software Package for Social Sciences (SPSS). A paired samples t-test was completed, which allowed comparisons to be made between responses given by participants in the curriculum subjects of Science, Modern Foreign Languages, English and Physical Education. Four focus groups were carried out, involving 24 girls across all four year groups, with six from each year group. Using a coding process the data from the focus groups was analysed and four key themes and categories were identified. With the use of content analysis it was possible for the frequency of phrases, categories, and comments to be identified and calculated.

Three key findings were obtained; first, that ability grouping can create pressure on pupils with regard to maintaining a standard or creating a fear of being moved down; however some pupils reacted in a positive way to this pressure. The second key finding linked to ability grouping was the advantage gained from being able to work with others of the same

ability, allowing for tasks and the pace of the lesson to be pitched at the right level. Third, mixed ability grouping allowed pupils to feel more relaxed and confident; however there were instances where pupils reported that they felt anxious about trying to keep up with others or feeling frustrated about having to wait for others to catch up. The results are discussed in relation to existing literature and recommendations are made, including; the benefits of creating a positive learning environment, the importance of reducing anxieties and pressures about being in the top sets, including having transparency with the system of ability grouping, and specifically for this Case Study school the potential to begin ability grouping earlier within Science. The findings should be useful to practitioners, as well as those in the Case Study school, to inform the principles and practices for organising groupings in order to create a positive learning experience for pupils. This research adds to the body of knowledge that already exists regarding ability grouping, and offered a new contribution with the insights from an independent secondary school and looking at a range of curriculum subject areas. The findings were equivocal, with both positives and negatives identified for mixed ability groupings and ability groupings in different curriculum subject areas.

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Acknowledgements

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Chapter 1

Introduction

1.0 Introduction

The focus of this research was to identify pupils' perceptions of their experiences in mixed ability and ability grouped lessons within a selective independent girls' secondary school in West London, which presents the Case Study for the research.

This chapter provides an overview of the research, outlining the purpose and context. An introduction to the research is provided, considering the rationale and context (1.2), including factors that prompted the research; the research questions are identified (1.3), and significance of the study is described (1.4). The chapter concludes with definitions of the terms that are used in relation to ability grouping and mixed ability (1.5), the structure of the study (1.6), and the conceptual framework (1.7).

1.1 Background and Context of the Research

Three factors prompted this research, the legislative and political influences that schools experience (1.1.1), current literature (1.1.2), and my previous personal and professional experiences (1.1.3).

1.1.1 Legislation and Political Influences

Throughout the UK, school practices can reflect current research and political issues, and therefore some schools have moved between ability grouping and mixed ability teaching. Ability grouping can be described as a method of how groupings for lessons were arranged,

where groups were organised according to the abilities of pupils, whereas mixed ability groupings were organised by another means, for example, alphabetically or by feeder school.

The 1944 Education Act established secondary education for all pupils, incorporating a tripartite system, which created grammar, secondary modern, and technical schools (Chitty, 1992; Sharp & Dunford, 1990). Within this system an examination (eleven plus) determined a pupil's aptitude, that in turn decided which school pupils attended. In the 1960s a shift towards comprehensive schools emerged, as the tripartite system, where ability and aptitude was measured at eleven years old, was thought to be too rigid; it was suggested that all pupils deserved an equal opportunity of acquiring intelligence (ibid, 1992). As a result, during the 1960s and 1970s the number of comprehensive schools grew, and more emphasis was placed on parental control with regard to the choice of schools, which increased the competition amongst schools for places (ibid, 1992).

The Education Reform Act of 1988 saw the introduction of the National Curriculum, grant maintained status, and the local management of schools, which made significant changes to the education system in England and Wales. The introduction of the National Curriculum resulted in a national system of assessment, and it was stated that attainment would be measured at ages 7, 11, 14, and 16. The National Curriculum was introduced as it was intended to allow standards against which progress and performance could be monitored (ibid, 1992).

The 1992 White Paper 'Choice and Diversity' (Linden, 1992) found schools moving towards being grant-maintained and specialising in one or more subjects, in addition to teaching all

core subjects of the national curriculum. At this time there were three types of school that pupils could attend; grammar, secondary modern, and comprehensive.

The Department for Employment and Education (1997) stated that "Excellence in Schools" could be achieved by ability grouping, where it was suggested that,

> "unless a school can demonstrate that it is getting better than expected results through a different approach, we do make the presumption that setting will be the norm in secondary schools and is worth considering in primary schools" (Department for Employment and Education, 1997, p. 12).

This recommendation suggested that all schools should be utilising ability grouping, as this system was the only way to achieve good examination results. This demonstrated the pressure that schools can experience to ensure they achieve good examination results, as league tables were published highlighting their performance in national attainment tests, and parents scrutinise a schools performance from those league tables (Hallam, Ireson, Lister & Chaudhury, 2003; Ireson, Hallam & Hurley, 2005). It is interesting to consider whether these methods of ability grouping were being adopted at the expense of the needs of individual pupils to try and raise academic results and standards.

With the 1997 Education Act it was hoped that with the new government in place there were going to be many changes, most notably for academic selection for grammar schools to be scrapped. However, this was not the case due to the local support these schools still had. In fact, the 1998 School Standard and Framework Act (Blunkett, 1998), allowed maintained schools to make provision for the selection of pupils for admission due to their aptitude. In 2000, it was announced that 100 comprehensive schools would be turned into "specialist colleges", and to achieve this schools would need to raise £50,000 through

sponsorship from local businesses which involved the local community. In turn, schools would be given £100,000, and £120 per pupil per year for at least four years, and would be allowed to select up to ten per cent of their intake based on aptitude (Gillard, 2011).

A move towards privatised education continued when, in 2000, it was announced (HM Treasury and The Rt Hon George Osborne MP, 2015) that the government would create City Academies that would be fully funded by private investors. These academies would be outside the control of local authorities, and investors would be allowed to control the curriculum, teachers and governors, and even rename the school. The main aim of academies was to turn around failing inner-city schools, and by September 2004, 17 academies had been opened. However, the academies did not produce the anticipated rise in standards that was hoped for, as, in 2006, GCSE results showed that over half of the academies were amongst the worst performing schools in England (Gillard, 2011).

The 2008 Education and Skills Act (Department for Children, Schools, and Families, 2008) raised the school leaving age to 18, requiring individuals to be in education or training until their 18th birthday. In 2010, Michael Gove (Department for Education, 2014) continued with the push to increase the number of academies, and it was suggested that this would improve the chances of the poorest children, and raise standards in English, Science and Mathematics.

More recently, an Ofsted report (The Annual Report of Her Majesty's Chief Inspector of Education, Children's Services and Skills 2014/2015) identified that reports will continue to observe and reflect on areas in schools that need further development, to improve the experiences and outcomes for pupils (2015a; 2015b). As suggested by Balls (2009), the government and politicians report that education reforms and changes to schools and

policies have been driven by progress and meeting the needs of individuals (ibid, 2009). It was potentially clear that changes have been advertised as being made for the benefits of pupils, however the rate the changes have occurred it can be difficult for schools to keep up and remain on top of the recommendations. It will be interesting to consider what reports will address next, and what reforms will be recommended for schools in the future.

1.1.2 Previous Research

Previous research into ability grouping and mixed ability grouping is equivocal, and has been a very contentious issue leading to very different outcomes. Ability grouping has been found as a means of raising academic standards (Allan, 1991; Huang, 2009; Hallam, Ireson, Lister, Chaudhury, & Davis, 2003; Ireson & Hallam, 1999; Macintyre & Ireson, 2002). Teachers have also identified that they prefer ability grouping due to reducing the range of abilities within the class, allowing lessons to be pitched at the right level (Baines, Blatchford, & Kutnick, 2003; Boaler, Wiliam, & Brown, 2000; Hallam & Ireson, 2007; Muijs & Dunne, 2010; Smith & Sutherland, 2003; Winstanley, 2010). Muijs and Dunne (2010) also found that pupils benefited from working in a lesson surrounded by pupils of a similar ability.

In 2015, Ofsted produced a report that acknowledged the most able pupils in key stage three found work too easy, and that when work was more challenging it was usually when they were working with pupils of a similar ability. The report identified that there was a lack of tracking pupils' progress, which prevented work from being pitched at the appropriate level (The Annual Report of Her Majesty's Chief Inspector of Education, Children's Services and Skills 2014/2015, 2015a). Despite this, positive outcomes were also recognised in mixed ability groupings, as this environment really stretched them (Ofsted, The most able students: an update on progress since June 2003, 2015b).

Negative effects of ability grouping have also been identified, both with regard to the motivational effects on pupils and low ability groupings being taught by less experienced or less qualified teachers (Araujo, 2007; Boaler, Wiliam & Brown, 2000; Chisaka, 2002; Forgasz, 2010; Hornby, Witte, & Mitchell, 2011; Ireson, Hallam & Plewis, 2001; Meijnen & Guldemon, 2002; Smith & Sutherland, 2003; Ward, 2005). Negative effects of ability grouping have not been solely restricted to the lower sets, as research has identified that pupils in top sets have indicated the pressure and the high expectations they feel in top sets (Smith & Sutherland, 2006). There was general agreement among researchers that pupils in high ability groupings tend to benefit or experience no difference, while those in low ability fall behind (Kim, 2012; Huang, 2009; Ireson, Hallam, Hack, Clark, & Plewis, 2002; Wiliam & Bartholomew, 2004; Venkatakrishnan & Wiliam, 2003).

However, research has also highlighted that mixed ability groupings benefit lower achieving pupils and has no harmful effect on the achievements of more able pupils (Linchevski & Kutscher, 1998; Meijenen & Guldemond, 2002). Other positive effects of mixed ability grouping have been highlighted including; less chances of pupils being labelled with a particular set; it was potentially easier to maintain the motivation of pupils working at a slower pace; it allowed for greater flexibility allowing pupils to progress at their own rate; and pupils benefited greatly from peer support (Smith & Sutherland, 2003). Hallam and Ireson (2007) identified that pupils were more satisfied with their lessons when they were organised by mixed ability.

In contrast to these positive elements of mixed ability groupings, when groups were organised in this way it was suggested by Newbold (1977) that teachers aimed their lessons at the middle of the group, and the faster or slower working members of the class would

have adapted. Smith and Sutherland (2003) also stated that in mixed ability groups it can be difficult to provide sufficient challenges for the most able pupils.

1.1.3 Personal and Professional Experiences

Looking back to my time at school I remember very clearly my experiences of Mathematics, where I was placed in a low set which determined that I was entered into the tiered paper examination. This tiered paper meant that the highest grade I could achieve was a C and, from the outset, this led me to believe I was not capable of achieving anything of worth in Mathematics. This changed my whole outlook towards this subject, completely knocking my confidence and motivation, and any belief of my capabilities in Mathematics. The rest of my subjects were all taught in mixed ability groups, and in this environment all pupils were treated equally, which gave me the belief that the teacher had confidence in my ability and I could do well. Whilst I was aware that the lesson moved at a different pace for individuals, and often I was waiting for others or feeling like I had to rush in some subjects, this was the environment I was used to as every curriculum subject was taught in this way apart from Mathematics.

However, during my teacher training, when I was training to be a PE teacher, I was able to observe how ability grouping could be used to the benefit of pupils. The benefit I was able to identify as a student teacher included allowing pupils to work with others of a similar ability without feeling inadequate, especially in PE when an individual's capabilities were on show for everyone in the class to see; and also allowing the teacher to reach more pupils in the lesson without a significant amount of differentiation.

During my teaching career I have also been able to see more curriculum subjects using ability grouping, and this led me to wonder whether pupils experiences of ability grouped lessons were similar to mine, and if pupils in lower sets felt demoralised by being perceived as not very good at the curriculum subject, or whether they enjoyed their experience of this environment. In essence, I became intrigued by the pupils' experience of different groupings in my own teaching school.

1.2 The Institution and Research Context

The school that has been chosen for the research was an inner London selective independent girls' school. The school was a day school for 759 girls aged between 11 and 18. It was built in 1861, originally as a boarding establishment for boys, set in fields near the River Thames in West London. In 1905 it became an independent day school for girls. From 1906 onwards it received grants from the London County Council and the Board of Education for equipment, library books and buildings. In 1951, the school received Voluntary Aided status under the 1944 Education Act, and in 1977, rather than becoming a non-selective school under the State system, it reverted to full independent status. Presently there are 118 teachers at the school, of whom 26 are part-time.

The school where this Case Study was based was a high achieving selective independent school, where their GCSE examination results for 2014-15 academic year were 94.3% A*-A, 99.6% A*-B. The pressure may have been higher in this environment compared to a non-selective school, where in this Case Study school their Middle Years Information System (MidYIS) results were in the top 10% nationally, therefore there was a lot of competition in the school for pupils to keep their work to a high standard. MidYIS tests measure an individual's developed ability, their raw learning potential which was not influenced by the

curriculum. It measured vocabulary, Mathematics, non-verbal, and skills. MidYIS tests were taken by pupils of secondary age, usually 11-14. Each school takes the test at different ages and this was dependent on the school, equally not all schools use this test; some use different tests, whilst others may not use any form of testing at all. This Case Study school utilised MidYIS testing in year 7, and pupils were then tested further in year 9 and again in sixth form with different tests.

At the time of this research, the Case Study school grouped pupils according to ability in certain curriculum subjects; Mathematics, French and Science (including Biology, Chemistry and Physics) whilst mixed ability grouping was used for all other curriculum subjects, where pupils were in form groups. The form groups were decided by the Head of Lower School, and were organised to offer a mix of feeder schools, to allow forms to have a diverse mix of pupils. Ability grouping began in Mathematics at year 8 and continued throughout the school, in Science ability grouping commenced at the start of the GCSE course (year 10). French traditionally utilised ability grouping from year 8 onwards, however, this curriculum subject was moving away from ability grouping towards mixed ability grouping. Further in-depth information regarding the subjects is outlined in Chapter Four (4.7.1).

The completion of the portfolio items (in particular portfolio item 2), provided the opportunity to identify how ability grouping was utilised within the chosen school, and capture some of the views of Heads of Departments. This allowed some background information of the school to be gleaned prior to the start of the main Case Study research. During this process it was found that when deciding how subjects organised their groupings the scheduling of timetables was taken into consideration as, for ability grouping to take place, the entire year group had to be timetabled to that subject at the same time. The

teacher responsible for timetabling highlighted that having a whole year group timetabled at the same time can be logistically challenging to organise when dealing with a large number of curriculum subjects.

1.3 Research Focus/Questions

The purpose of this research was to explore possible differences between the experiences of pupils' in ability groups compared to mixed ability groups, considering the motivational effects this can have on pupils, within an independent secondary girls' school. The research questions have evolved, and been influenced by the literature review (Chapter 2) and the Institutional Focused Study i.e. the pilot study (Chapter 3).

The research questions were:

1) How do pupils perceive their learning experience in an independent secondary girls' school, comparing mixed ability lessons and ability grouped lessons?
2) Is the motivation of pupils affected by ability grouping, with regard to an individual's belief of competency within curriculum subjects, and persistence to complete tasks?
3) Do pupils' levels of self-esteem differ depending on how the lesson is organised?
4) Are levels of anxiety affected with regard to the pace of lessons, whether pupils can keep up or meet the demands of the lesson?

1.4 Significance of the Study

There are two main significant contributions that this study achieved; the first was through the unique Case Study stance, investigating the different way curriculum subjects were organised and the perceptions pupils have of their experiences. This approach allowed for a

number of curriculum areas to be looked at as opposed to one curriculum subject, which enabled an insight into the experiences of pupils in mixed ability and ability grouped lessons.

Secondly, this research focused on an independent selective secondary girls' school, which was an area that has not been the subject of research previously. As this Case Study focused on one school, it gave the opportunity for the voices of pupils' to be captured, focusing on their views, both positive experiences and concerns they may have regarding the way lessons were organised at their school. It gave pupils' the opportunity to contribute their thoughts and feelings in their own words, which therefore offered an explanation of individual perceptions of an imposed organisational structure at their school.

1.5 Terminology

The review of literature in Chapter Two demonstrates a range of terms have been used to describe how schools organise groupings, indicating that an array of vocabulary has been used by different researchers.

For example, ability grouping (e.g. Hallam & Ireson, 2007; Hallam, Rogers, & Ireson, 2008; Ireson & Hallam, 2005; Preckel, Gotz & Frenzel, 2010; Worthy, 2010); and ability setting (e.g. Muijs & Dunne, 2010) have been used synonymously, and describe practices where pupils are placed in different ability groups for different curriculum subjects.

In contrast, 'streaming' (e.g. Abraham, 2008; Lu, 2012) and; 'tracking' in America (e.g. Ansalone, 2001; Van Houtte, Demanet, & Stevens, 2012; Venkatakrishnan & Wiliam, 2003) have both been used to refer to schools which put pupils into the same ability group across all of their curriculum subjects.

'Homogenous' and 'heterogeneous' groupings (e.g. Goodwin, 1997; Huang, 2009; Kemp & Watkins, 1996) were other terms used to describe ability grouping and mixed ability groupings, respectively.

Mixed ability grouping (e.g. Lyle, 1999; Venkatakrishnan & Wiliam, 2003) refers to when groups were organised randomly, or by means other than ability, for example alphabetically by age, gender, or by feeder primary schools. Table 1.1 lists the different terms that have been mentioned above and the different definitions of ability grouping for illustrative purposes.

Table 1.1 Types and Definitions of Ability Grouping

Term	Definition
Ability Grouping	"...defined as any school or classroom organization plan that is intended to reduce the heterogeneity of instructional groups; in between-class ability grouping the heterogeneity of each class for a given subject is reduced, and in within-class ability grouping the heterogeneity of groups within the class (e.g. reading groups) is reduced" (Slavin, 1990, p. 471).
Ability Setting	where pupils are allocated to a set based on their ability subject by subject (Boaler, Wiliam & Brown, 2000)
Streaming	"...where students are segregated by ability and taught in the same class for all subjects" (Boaler, Wiliam, & Brown, 2000, p631).
Mixed Ability Grouping (also known as heterogeneous groupings)	Where grouping is organised randomly, it gives a mix of abilities in a group. Groupings can be organised in form groups, for social reasons for example (Ireson & Hallam, 2001).
Within class ability grouping	Where "...pupils are grouped within the class on the basis of ability. They may be grouped within the class for different subjects" (Ireson & Hallam, 2001, p. 10).

After looking at all of the options above, it was decided that throughout this thesis, the terms ability grouping and mixed ability groups would be used, as they best described the practices that took place in this Case Study school.

1.6 The Study

This study was a Case Study, designed to investigate the experiences of pupils in mixed ability and ability grouped lessons within a selective independent girls' secondary school. A pilot study was conducted prior to starting the full scale research, as it allowed for further information to be gathered surrounding this area of research, the school, and for data collection methods to be selected and tested.

The pilot study, referred to as The Institutional Focus Study (IFS), is fully outlined in Chapter Three. The pilot study was informed by the literature review (Chapter 2), which focused on three main areas, i.e. ability grouping (2.2), mixed ability groups (2.6), and how these relate to the motivation of individual pupils (2.8).

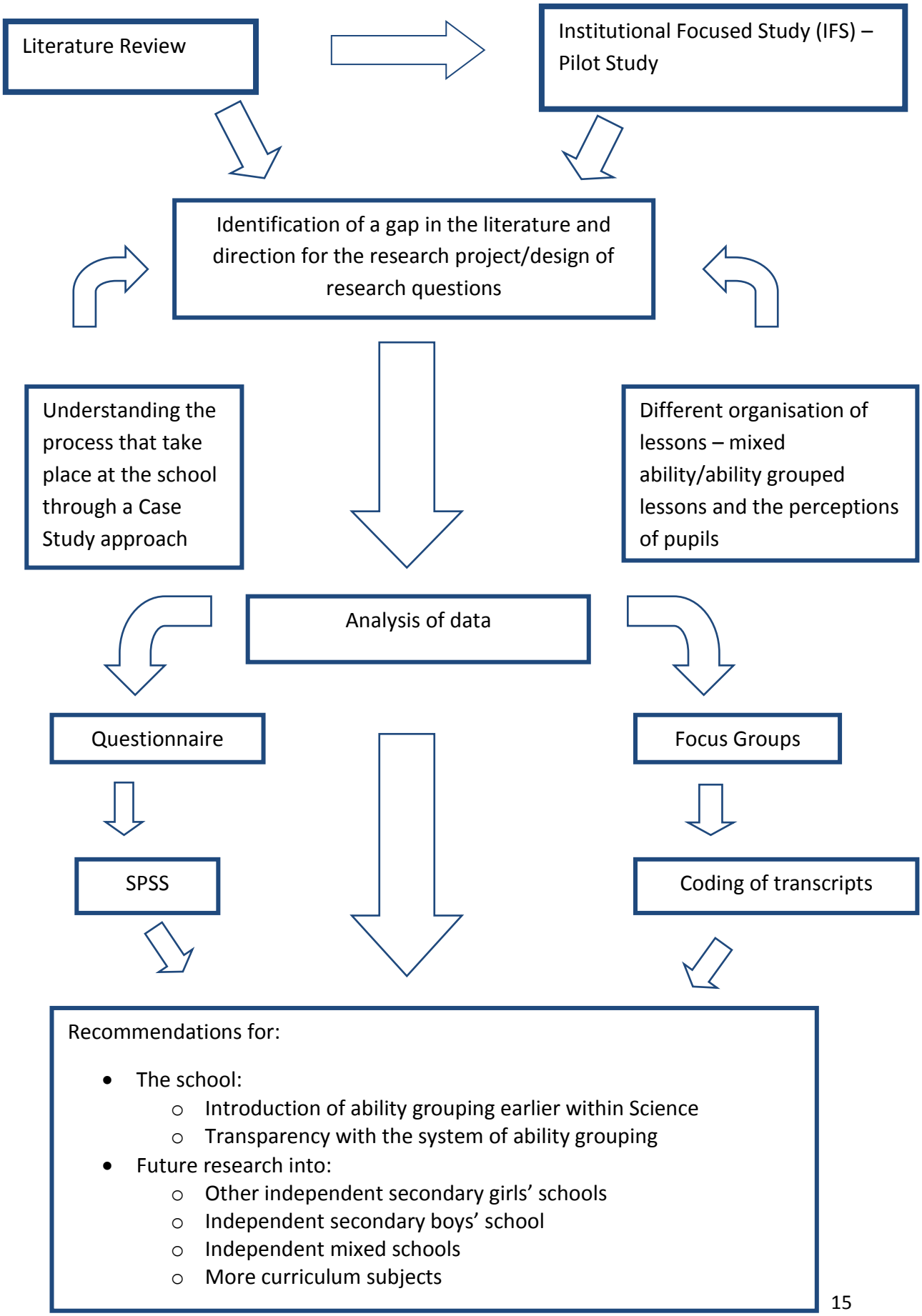
The research questions outlined above (1.3) were the research questions for the Case Study research, and these were determined from both the literature review and findings from the pilot study. For the pilot study unique research questions were created, and these can be found at 3.2.1. The findings from the pilot study, and the research questions for the Case Study influenced the choices and justification for the research methodology, detailed in Chapter Four.

The results and analysis of data are outlined in Chapter Five, and discussed in relation to the literature in Chapter Six. Final conclusions are then drawn in Chapter Seven, including suggestions for future research and implications for practice.

1.7 Research Framework

The research framework (seen in figure 1 on the next page) was used in the design, analysis and development of the Case Study research. The research framework demonstrates the main areas that were investigated, it incorporates the key factors that were involved and shows the processes that took place throughout the research (Miles & Huberman, 1994).

Figure 1 Research Framework



The first stage involved the identification of a gap in the literature and development of the research questions. This was determined through analysis of the pilot study along with the literature review. The literature review identified a gap in the research, with regard to the independent sector and single sex education, along with inconsistent findings from previous research concerning ability grouping.

A Case Study approach was adopted to allow for an in depth understanding of the processes and experiences of pupils in this one institution. The next phase of data analysis, through questionnaire and focus groups, allowed recommendations to be made for the school and the practices that took place, and to direct future research.

1.8 Summary

This Chapter has outlined the purpose for this research, giving information regarding the Case Study that was researched and general background regarding ability grouping and mixed ability grouping.

The next chapter reviews the literature, which directed both the pilot study and the main Case Study research, and formulated the research questions.

Chapter Two

Literature Review

2.0 Introduction

This chapter reviews the literature concerning themes that emerged from reading, notably ability grouping (2.2), including international research on ability grouping (2.6); mixed ability grouping (2.7), and how motivation can be linked to these (2.9). Amongst this, issues are raised in relation to the ability of individuals (2.4.3).

2.1 Justification and Scope of the Literature Review

The literature review covers research since 1960 to the current day, even though it could be argued that research from 1960 was dated, it was felt important to highlight some key research that determined practices in schools at that time, and how this impacted future decisions about the grouping of pupils in schools.

The second part of the literature review focuses on how levels of motivation and individuals belief in their academic ability relates to ability grouping. In particular, the Expectancy-Value theory is discussed as this theory suggested that individuals' choices, persistence, and performance can be explained by their beliefs with regard to how well they think they will do in a task and the extent to which they value the task (Wigfield, 1994; Wigfield & Eccles, 2000; Wigfield & Eccles, 1992).

2.2 Ability Grouping

Ability grouping still continues to be a widely disputed issue within education, and fundamental issues remain concerning the effects of ability grouping on student achievement and welfare (Boaler, 1997a; Ireson & Hallam, 1999).

Ability grouping was perceived to be a strategy to raise academic standards nationally, and help schools dealing with behaviour and attendance issues (Ireson & Hallam, 1999; Macintyre & Ireson, 2002). "The appropriateness of setting, streaming and mixed-ability grouping remains a contentious and widely disputed issue within education" (Boaler, 1997a, p. 125). Throughout the UK, schools can reflect current research and political issues, and therefore schools have moved between ability grouping and mixed ability teaching. There was no easy method or decision to determine what organisation of grouping was utilised, and this has been the subject of extensive controversy (Davies, Hallam, & Ireson, 2003). The decision that a school makes can be influential to every pupil at the school, as Boaler (1997a) states "...the set or stream that students are placed into, at a very young age, will almost certainly dictate the opportunities they receive for the rest of their lives" (p .142).

The Department for Employment and Education (2001) highlight how ability grouping was the best option for lessons and called for more, as "...subject by subject setting enables teachers to meet the talents of individual pupils more effectively" (Department for Employment and Education, 2001).

There has been a great deal of literature on ability grouping in the past, in particular in the USA and the UK. Ireson and Hallam (1999) go further to highlight the gaps in research that need to be filled,

> "In particular, we need a clearer picture of the relative effects of grouping on both academic and non-academic outcomes for pupils. We also need a better understanding of the way in which grouping is related to the ethos of the school, to teacher and pupil's attitudes and to classroom teaching. Further research is needed on the effectiveness of mixed ability and whole class teaching in relation to different curriculum subject matter" (Ireson and Hallam, 1999, p. 354).

Later in the literature review, international research that has taken place across the world is discussed (2.6). However, first the history of ability grouping and how it has developed is outlined.

2.3 The History and Development of Ability Grouping

This section highlights the historical development of ability grouping, and demonstrates how ability grouping has fallen in and out of favour. Different forms of ability grouping have been used over time, as exemplified in Table 1.1 (Chapter 1, page 12).

Ability grouping was originally introduced in primary and secondary schools in the United Kingdom in the 1930s (Ireson & Hallam, 2001), and was considered to be the most appropriate method to use until the 1960s (Kelly, 1974). During the 1960s and 1970s pupils were taught in streamed classes, where pupils were in the same ability group for all subjects (Ireson & Hallam, 1999). After that many schools moved towards a less structured setting which incorporated different sets for different subjects. The popularity of streaming decreased after research (for example Barker Lunn, 1970; Ireson & Hallam, 2001), demonstrated that streaming had a negative impact on pupils' self-esteem, attitudes and engagement without any significant positive impact on pupil attainment. This was linked to changes in the priorities schools had, away from pupil attainment and towards equality of opportunities for pupils (Ireson & Hallam, 2001).

Following the Education Reform Act (Department for Employment and Education, 1988) the National Curriculum was introduced; mixed ability grouping was the most common practice in primary schools and the first year of secondary schools, and there was an increased drive for ability grouping through setting (Hallam, Ireson, & Davies, 2004a). The increased drive arose from the competitive nature that was introduced to schools by government initiatives, with examination results and key stage test results being published to give parents information when choosing schools, and funding for schools was linked with pupil numbers (Ireson & Hallam, 2001).

The Chief Inspector for schools, in the annual report (Ofsted, 1998), stated that evidence indicated that ability grouping can help teachers to plan work more precisely and select appropriate teaching methods. Ability grouping has become a highly contentious subject with research offering a variety of views on the subject since the Education Reform Act 1988. "A prescribed and highly differentiated curriculum content has encouraged, and in some subjects enforced, setting as the commonsense response to the new teaching regime" (Reay, 1998, p. 545). Due to class sizes growing it became necessary to group according to ability due to the vast ranges of ability present, however due to this increase in size it made ability grouping more complex and a time-consuming process. Within-class ability grouping has often been used in such classes to facilitate teaching by reducing the range of abilities of children being taught at any one time (Gregory, 1984). Several areas have been outlined as key factors that schools take into account when considering how to group pupils; raising standards, matching work to pupil needs, the demands of different curriculum subjects, making the best use of teacher expertise, the national literacy and numeracy strategies, meeting the non-academic needs of pupils, school and class sizes, resources, timetabling,

school ethos, and accountability to outside bodies (Davies, Hallam, & Ireson, 2003; Ireson, Clark, & Hallam, 2002; Ireson & Hallam, 2001). The main benefit of ability grouping was thought to be to increase teacher effectiveness as they were able to deal with homogenous classes (Sorensen, 1970). According to Ireson, Hallam, and Hurley (2005) the development and increase of ability grouping was introduced as a means of raising standards of achievement,

> "The global drive to raise educational standards has encouraged researchers and policy makers to reconsider the effectiveness of ability grouping as a means of raising student attainment. In the UK, the introduction of the National Curriculum and an increased emphasis on standards led to pressure to increase the amount of ability grouping in schools" (Ireson, Hallam, Hurley, 2005, p. 443).

This review investigates how different schools and institutions implement ability grouping, and discusses the advantages and disadvantages of ability grouping.

2.4 Practicalities of Ability Grouping in Schools

It was important to consider how individual schools introduced ability grouping, and the practices that were followed, and how it was determined which ability group pupils were assigned to. As schools can organise groupings differently so the practices and the experience of individual pupils can potentially differ greatly.

The practices that schools adopted for ability grouping were decided upon by the individual schools, and they tended to be based upon raising standards (Hallam, Ireson, & Davies 2002; 2004), it was suggested that this area needs further research (Hallam & Parsons, 2013) to potentially give a standardised criteria for all schools to follow. This gap in the literature led

to the use of a Case Study approach, as this allowed for the criteria that this one particular institution followed to be analysed.

Muijs and Dunne (2010) suggested that pupils' experiences of setting processes and practices were highly significant, and could have an effect on their school experience, involving their expectations, motivations, and aspirations. If pupils were dissatisfied with the setting process they experience, for example being placed in a lower set than they were expecting or felt they should have moved, then this could have resulted in a negative school experience for that individual. This negative experience could have led to pupil's levels of motivation being reduced, and therefore potentially limiting their aspiration in that curriculum subject area.

Individual secondary schools determine which subjects utilise ability grouping; therefore there was considerable variation between schools in the UK (Hallam, Ireson, & Davies, 2002). Most secondary schools in the UK adopted some form of structured ability grouping, usually setting, for at least some curriculum subjects (Benn & Chitty, 1997).

Schools independently decided upon how they determined the allocation of pupils to sets, some schools utilised internal tests, examinations or national key stage tests, whereas other schools took into account behaviour and pupil motivation (Davies, Hallam, & Ireson, 2003; Ireson, Clark, & Hallam 2002); and even gender could be a factor in the formation of balanced groups (Hallam & Ireson, 2007). The following issues were raised as difficulties when allocating pupils to groups; behaviour and group dynamics, group size, and parental pressures (ibid, 2003). Ofsted (1998) noted that "few schools have documentation to support setting, such as the criteria for the allocation of pupils to particular sets" (p. 13). When categories such as teacher judgement were taken into account when organising

ability groupings this allowed scope for pupils to be misplaced (Ireson, Clark, & Hallam, 2002), however Denton and Postlethwaite (1984) suggested that the characteristics observed by teachers were not strong enough to lead to misjudgements. It was also suggested that this was an additional burden placed on teachers which some teachers may view as beyond their job (ibid, 1984).

It was suggested that unless schools have stringent systems and criteria in place for the grouping of pupils it could lead to the possibility of pupils being wrongly placed in sets (Davies, Hallam, Ireson, 2003), and this could lead to detrimental effects on pupils learning (Forgasz, 2010).

As well as looking at the experience of pupils, this study also explored the practices of ability grouping and whether pupils felt the criteria that the school had in place were suitable from their perspective.

2.4.1 Movement between Ability Groups

The literature has shown that pupils in low ability sets have expressed disaffection and an eagerness to move sets (Hallam & Ireson, 2007). However, wanting to move sets was not solely restricted to the low sets, there were some pupils who found it difficult to cope with the fast pace of top set work (Boaler, 1997a, 1997b, 1997c; Boaler, Wiliam, & Brown, 2000; Smith & Sutherland, 2006).

Once ability grouping was in place, it can be difficult to move individuals between sets, as different sets can follow different courses, and it was also quite possible that the sets were taught at different paces resulting in problems for upward group mobility (Davies, Hallam, & Ireson, 2003; Hallam & Toutounji, 1996; Ireson & Hallam, 1999; Smith & Sutherland, 2003).

Research has suggested that for ability grouping to be effective it was essential for there to be movement between groups, however this does not always happen in practice (Devine, 1993; Gillborn & Youdell, 2000; Ofsted, 1998; Winstanley, 2010). It was highlighted by Hallam and Ireson (2007) that a lack of reviewing pupils' allocations to sets was what prevented more movement between sets occurring.

Yearly or end of term examination results were commonly used as a method to determine which sets pupils should be placed in, and it should be taken into consideration that "there are no grounds for assuming that those who do not score highly could never do so, given the right kind of intellectual stimulus" (Kelly, 1980, p. 9). Therefore, if pupils do not do well in a test are they to be in the bottom set for the rest of their time at the school? Or should the fact that pupils develop at different rates be taken into consideration, and therefore flexibility between classes allowed. If pupils were expected to perform well in a test to determine their set this suggests that intelligence is fixed, and if a high score is not achieved this does not mean that further developments and improvements cannot take place. As Davies, Hallam, and Ireson (2003) suggest "placing pupils in groups according to test data alone can be unreliable and leave pupils' strengths or weakness unaddressed (p. 47). In addition, tests to determine whether movement was necessary were often infrequent, and sometimes only taken at the end of academic years (Ireson, Clark & Hallam, 2002) which can be a long time for pupils to wait if they have been placed in an incorrect group.

As discussed above, this study also explores the practicalities of the ability grouping practices that pupils experienced, for example what they viewed as the main method of determining how sets were arranged. The finding from this can then be fed back to this

Case Study school, as this information can be valuable for determining the practices that either the whole school, or individual departments adopt.

2.4.2 Curriculum Subjects use of Ability Grouping

Research suggested that the most common subject to be grouped by ability was Mathematics (Hallam & Parsons, 2012), followed by Science, Modern Foreign Languages and English (ibid, 2012). Ability grouping was less common in the Humanities, and infrequent in Art, Music, Physical Education, and Design and Technology (Ofsted, 2001; Wiliam & Bartholomew, 2004). It was suggested that curriculum subjects which require more discussion based lessons would be more suited to mixed ability groupings (ibid, 2004).

Ireson and Hallam (2005) found that pupils in a middle set felt more positive towards English compared to pupils in top sets in Mathematics and Science. They identified the need for further research into this to identify clearly the reasons for this difference, as at that time it was only possible to speculate, suggesting that teachers in English could have been more empathetic, or the subject English may allow for pupils to have greater opportunities to discuss their own thoughts and experiences compared to Science or Mathematics. This could also be attributed to the fact that normally in Maths or Science there are clear answers that pupils will either know or not, whereas English can be open to more interpretation and different views and opinions can easily be discussed.

Ireson, Hallam, Hack, Clark, and Plewis (2002) suggested that "...the impact of setting differs in relation to curriculum subjects, with progress in Mathematics but not English or Science being affected" (p. 311). It was also found that ability grouping can have an effect on academic self-concept, although this can differ with individuals according to the curriculum

subject (Ireson, Hallam & Plewis, 2001). The conflicting findings from research highlight the need for further research in this area, to allow for greater understanding and further clarification between the different curriculum subjects and how the groupings are organised.

2.4.3 Ability

Ability can be defined as "...the quality of being able to do something; a natural or acquired skill or talent" (Koshy, Ernest, & Casey, 2009, p.215). It was important and interesting to consider the potential that individuals have to acquire and develop new skills, and whether different groupings of lessons can affect how pupils may progress. Every school would potentially have the focus on developing individuals' potential; to achieve this some schools adopted the 'gifted and talented programme' where they assigned the top pupils to this group who were involved in special activities. The gifted and talented programme is discussed later in 2.4.3.3.

Other schools utilise ability grouping to target high achieving pupils or pupils with high levels of ability, and to give further support to those who were lower in ability. There were also schools that do not group pupils at all, and try to develop skills and potential in all pupils regardless of their ability.

It was interesting to consider how ability was initially measured, and then monitored, as this can impact the set that pupils were placed in, or moved into. Koshy and Pinheiro-Torres (2013) explain that there was agreement in education that pupils deserve the right to be educated in a way that enables them to reach their full potential. So schools and teachers need to consider and monitor the progress that pupils were making, and monitor whether

individuals were reaching their full potential. This seems a very important issue, as it has been outlined on several occasions that the needs were not being met of the most able pupils (Ofsted, 2009).

An important issue that also needs to be considered when discussing the organising of grouping in schools was the idea that ability was fixed and one-dimensional (Muijs & Reynolds, 2011), and how ability was really measured. It has been suggested by Boaler, Wiliam, and Brown (2000) that ability grouping was "...a practice founded upon the idea that students have relatively fixed levels of ability and need to be taught accordingly" (p.631). It can be difficult to agree with the notion that ability is fixed, as there are so many instances that can affect an individual's performance on certain days, for example an individual's mood or how tired someone felt on a particular day; both of these things could cause a pupils academic performance to fluctuate, so therefore surely it can be hard to judge an individual's ability on one single occasion. Boaler (2016) agreed with this, stating that,

> "Children develop at different rates and times, and they reveal different interests, strengths, and dispositions at various stages of their development. We cannot know what a 4- or 14-year-old is capable of, and the very best environments we can give to students are those in which they can learn high-level content, and in which their interest can be piqued and nurtured..." (Boaler, 2016, p. 111).

2.4.3.1 Intelligence Quotient (IQ)

One factor of ability was intelligence which can be impacted by education (Muijs & Reynolds, 2011), and this can be measured through IQ tests. IQ was reported by Gould (1996) to only be an average number "...of many performances, not an entity unto itself..." (p. 181). Montgomery (2010) suggests that an IQ test rarely identifies an individual's

potential for learning and problem solving, and simply tests what an individual was able to commit to memory during education.

Gould (1996) raised concerns that pupils could be labelled with an IQ figure and this could give teachers a set label which could influence their thoughts and attitudes towards pupils, which could lead to a self-fulfilling prophecy. As an attitude that was portrayed regarding an individual by a teacher, whether this was a high or low IQ, could eventually cause or lead to the child to start behaving in these ways.

Gould (1996) identifies that "...low IQ might be subjected to extensive improvement through proper education. And it might not" (p. 186). So even if a pupil were to begin in a bottom set there is nothing to stop the set changing after a period of time, but this relies on teachers having a belief that every pupil is capable regardless of what set they are in.

All of these factors lead to suggesting that it can be difficult for ability to initially be measured, and then monitored, as multiple factors can affect the development of an individual's ability. Naturally, a teacher would hope that over the course of an academic year an individual's ability would increase, although this would be very dependent on individuals, as they would all progress at different rates. Therefore, it was imperative that throughout the year there were regular reflections of pupil's progress, both when groups were organised by ability and when they were mixed in ability. However, this seems to be more important in groups that were organised by ability.

2.4.3.2 Carol Dweck's Growth and Fixed Mindsets, and Helpless Response and Mastery-Oriented Responses

Dweck (2000) identified a continuum that individuals can be placed on with regard to how they deal with failure. Growth mindset and fixed mindset are two terms that have been used by Dweck to describe how individuals perceive their abilities. If an individual has a fixed mindset then they believe that their abilities are innate and will not change, if they experience failure then this would be put down to a lack of ability. Whereas, an individual with growth mindset believes that ability can increase as long as they give the required amount of effort, commitment to the task, and hard work (Dweck, 2006).

When considering IQ, Licht and Dweck (1986) found that when girls were given a confusing task, girls with higher levels of IQ struggled more and gave a poorer performance, demonstrating a helpless response, compared to girls with lower IQ's. Dweck (2000) identified this helplessness response as individuals who were more likely to choose low challenge or easier tasks, tasks which they knew they would succeed in. Pupils displaying this type of response to tasks have the view that once they have experienced failure there is nothing that can be done to rescue the situation (ibid, 2000). Dweck (2000) also found that the opposite of this response, mastery-oriented response, describes pupils who remained focused on tasks and achieved success despite any difficulties they may have come across.

Boaler (2016) has very recently highlighted the importance of making mistakes and experiencing failure, and the benefits that this can have on learning. Boaler specifically looked at Mathematics, however, this positive approach to making mistakes, and an awareness of the benefits this can have can surely influence a number of curriculum areas.

2.4.3.3 Gifted and Talented Programme

In 1997 the Labour government introduced the 'gifted and talented' policy, although Koshy and Pinheiro-Torres (2013) suggested that this policy was introduced in haste and was therefore subject to a number of changes. The initial focus was on the underachievement of able pupils, and therefore schools had to identify pupils for the gifted and talented register, and then create a programme to meet their needs.

Brady and Koshy (2014) found that schools had made provisions for gifted and talented pupils, through enrichment and extra-curricular activities, however the issue was with embedding these activities in the regular activities of the school. It was interesting to consider, whether the activities that were organised for gifted and talented pupils could become a contentious issue with other pupils in the school if these activities were not available to them. As mentioned above, an issue to be aware of was the identification of ability and how individuals were selected to be part of the gifted and talented programme. There was extensive information and guidelines provided to schools (Department for Children, Schools, and Families, 2008), giving criteria for how pupils can be selected onto the gifted and talented register. Koshy and Pinheiro-Torres (2013) discussed the issues that could occur with parents with regard to the allocation of pupils to the gifted and talented register, as this could lead to parents having unrealistic expectations for those who were placed on the register, but can also lead to issues if parents felt that their child should have been included on the register. Determining the set that pupils were placed into was also a contentious issue with parents as well, and this is discussed further in 2.5.2 (Negative Effects of Ability Grouping). The issue of whether the gifted and talented register should be shared

with parents at the school was raised as a concern, or whether sharing this information can potentially cause more issues (ibid, 2013).

2.4.3.4 Domain Specific Ability

The success that pupils experienced could differ greatly between different domains, and would be very different between different individuals. When referring to domains, this could be an activity, a different curriculum area, or specific skill involving co-ordination for example (Paunonen & Hong, 2010). Therefore it should be considered that the views pupils have regarding their ability would potentially change between different curriculum subjects, or even change within the curriculum subjects depending on the topic that was being covered. Success at one of these particular domain areas could lead to increasing an individual's level of self-efficacy in this area, but this would only be to this area. For example, success in a task in Biology would potentially increase the level of self-efficacy in this area, but would not have had any impact upon self-belief in Chemistry or Physics. This would be described as narrow domain specific, as it was focusing on one specific area. An individual can also experience broad domain specific skills, which would then not refer to any specific area, and would look more generally at life skills, for example performing well in a variety of tasks (Scholz, Dona, Sud, & Schwarzer, 2002).

The advantage of this research was the fact the pupils were questioned about different curriculum subjects, which would hopefully take into account some of the different experiences and different domain specific abilities of pupils.

2.5 Positive and Negative Effects of Ability Grouping

It has been suggested in the literature that ability grouping has both positive and negative effects on pupils, both in high ability groups and low ability groups.

2.5.1 Positive Effects of Ability Grouping

Generally ability grouping was perceived as a means of raising academic standards (Hallam, Ireson, Lister, Chaudhury, & Davis, 2003; Huang, 2009; Macintyre & Ireson, 2002), and positively affecting achievement (Gamoran & Berends, 1987). It has been outlined by Muijs and Dunne (2010) that ability grouping was positive for lower ability pupils, who would not be left behind not understanding and becoming demoralised. Whereas, with high ability pupils they were less likely to become bored in a group of similar ability, allowing the lesson to be pitched at the right level and giving sufficient challenge for all pupils (Feldhusen & Moon, 1992; Ward, 2005; Winstanley, 2010). Goodwin (1997) identified the benefits of ability grouping in Physical Education, where a pupil's ability is on show to all in the class. If the groupings were mixed then this can be difficult for less able pupils, as they could be intimidated by pupils who were more able, and this could lead to them not wanting to try new things and be embarrassed in front of the class. However, Kulik and Kulik (1992) suggested that academic benefits were clearest for those in the high ability groups, but there was no harm to pupils in lower ability groups. This suggests that higher ability pupils were most suited to being placed in ability groups, as this environment allowed them to progress more academically. Whilst it seems that from the research conducted by Kulik and Kulik (1992) lower ability pupils did not experience more success in an ability grouped environment, however there was no detriment to their learning.

Teachers have frequently reported they prefer ability grouping, as it can be assumed that a set will contain pupils who were achieving at the same level, reducing the range of abilities which would make it easier for lessons to be pitched at the right level (Baines, Blatchford, & Kutnick, 2003; Boaler, Wiliam, & Brown, 2000; Hallam & Ireson, 2007; Muijs & Dunne, 2010; Smith & Sutherland, 2003; Winstanley, 2010). It has also been reported that teachers believe ability grouping allows for the "...more able pupils to maximise their attainment..." and protect pupils from "...negative peer pressure..." (Hallam & Ireson, 2003, p. 354). Smith and Sutherland (2003) indicated that teachers believed set classes were more purposeful and focused compared to mixed ability classes.

Research has shown that other positive effects of ability grouping include allowing pupils to work in classes at a pace that was suited to them with other pupils of a similar ability, and this was relevant to all abilities and sets (Muijs & Dunne, 2010), allowing high ability pupils to work harder to achieve, whilst allowing low ability pupils to experience success by taking them out of direct competition with more able individuals (Reuman, 1989). It has been reported that students who were grouped by ability developed a positive attitude towards the subjects they were studying as opposed to students in mixed ability classes (Kulik & Kulik, 1992). Ireson and Hallam (2005) recognised that pupils in top sets felt more supported by their teachers and felt their views were valued compared to pupils in middle or lower sets. Despite the positive effects of ability grouping that have been noted this was not consistent across a number of subjects (Harlen & Malcolm, 1997; Ireson & Hallam, 2001; Ireson & Hallam, 1999; Ireson, Hallam, Hack, Clark, & Plewis, 2002; Ireson, Hallam & Hurley, 2005).

Hallam and Deathe (2002) reported that when pupils gained more experience of ability grouping they grew to prefer this method compared to mixed ability teaching. Although this finding did vary with different classes, suggesting that the individual teacher was able to impact the attitude pupils had towards the particular lesson, and consequently their feelings towards how the groups had been organised for that subject.

2.5.2 Negative Effects of Ability Grouping

A number of studies in the UK have identified the negative effects of ability grouping, both with regard to the motivational effects on pupils and low ability groupings being taught by less experienced or less qualified teachers (Araujo, 2007; Forgasz, 2010; Hornby, Witte, & Mitchell, 2011; Meijnen & Guldemon, 2002; Smith & Sutherland, 2003; Ward, 2005).

Research has found that ability grouping has led to direct comparisons for pupils, and therefore pupils in low sets compare themselves to pupils in top sets to determine their own academic abilities, which resulted in them feeling less capable (Meijnen & Guldemond, 2002). Negative effects of ability grouping were not solely restricted to the lower sets, as research has outlined that pupils in top sets have indicated the pressure and the high expectations that they felt in top sets (Smith & Sutherland, 2006). Ability grouping has also been shown to have a negative effect on an individual's self-concept and self-efficacy, which can lead to impinging on academic achievement and future academic success or failure (Ansalone, 2001; Ansalone & Ming, 2006). This will be discussed in greater detail later in this chapter (2.8.2).

There was general agreement in some research that pupils in high ability groupings tend to benefit or experience no difference, while those in low ability fall behind (Huang, 2009;

Ireson, Hallam, Hack, Clark, & Plewis, 2002; Kim, 2012; MacIntyre & Ireson, 2002; Venkatakrishnan & Wiliam, 2003; Wiliam & Bartholomew, 2004). This was supported further by Hallam and Ireson (2003) where teachers were found to treat pupils very differently in terms of whether they were in an ability group or taught in mixed ability groupings. For example top set pupils were set more homework compared to bottom set pupils, and more detail was given in the feedback for top set pupils (Ireson & Hallam, 2005); and lower sets did not receive as many academic merits as pupils in top sets causing disaffection and a divide in the school (Delamont & Galton, 1986; Lacey, 1970). Also, the expectation of teachers differed with regard to the pace of work for mixed ability and set classes, and from top set to bottom set; it was also suggested that some pupils preferred to be in the middle set where the pace can be slower (Ireson and Hallam, 2005).

It has been suggested that setting was largely a preference for middle class parents, as they wished for their children to be separated from the less able and poorly behaved children (Ball, Bowe & Gerwitz, 1996; Boaler, 1997a, 1997c; Reay & Ball, 1997; Taylor, 1993). Wiliam and Bartholomew (2004) highlighted in their research the overrepresentation of working class students in lower sets, and therefore leading to working class students making less progress compared to middle class students. Ethnic minorities also tended to be overrepresented in the lower sets (Oakes & Guiton, 1995; Troyna & Siraj-Blatchford, 1993).

Low ability sets have been associated with low quality teaching, with this low quality teaching was characterised by teachers' low expectations, low status, non-academic curriculum, valuable class time spent on managing students' behaviour, and most class time devoted to paperwork, drill and practice (Linchevski & Kutscher, 1998; Smith & Sutherland, 2006); also lower sets were reported to receive less access to the curriculum, were taught in

more structured ways, with greater levels of repetition, less discussions and more practical work (Ireson & Hallam, 2001).

Research has also reported that teachers have described bottom set pupils as slow, struggling or working at a low level, and described their teaching as easy and repetitive (Worthy, 2010). Once placed in a low ability group it can lead to affecting an individual's academic achievement over a period of several years (Dreeban & Barr, 1988; Oakes, 2005; Reumann, 1989). It has also been suggested that some teachers may easily lose motivation when teaching a bottom set (Kim, 2012); and teachers have historically indicated a preference to teach the top set (Ball, 1981; Finley, 1984), and see being given the top set to teach as achieving a high status in the school (ibid, 1984).

Despite teachers highlighting a preference for teaching ability groups (Boaler, Wiliam, & Brown, 2000; Hallam & Ireson, 2007; Muijs & Dunne, 2010), research has found that in a set class teachers were more likely to treat all pupils in the same way, and possibly consider their ability to be identical as opposed to being similar (Boaler, 2016; Smith & Sutherland, 2003).

Research by Hallinan (1994) outlined that improving practices of ability grouping can lead to preventing many of the criticisms highlighted above rather than eliminating ability grouping altogether. Allan (1991) supported this by suggesting that a supportive approach by all adults, both teachers and parents, could go a long way toward minimising any emotional effects of ability grouping.

The conflicting findings from research here highlight the need for further research in this area, to allow for greater understanding and further clarification.

2.5.3 Interventions to Reduce the Negative Effects of Ability Grouping

To improve ability grouping, Ireson and Hallam (1999) identified the following principles that should be followed; a student's main experience should be within mixed ability classes and re-grouping by ability should occur only in subjects in which reducing the spread of attainment in the group was particularly important; the grouping plan must reduce student variability in the specific skill being taught, not just in general ability or achievement; there should be frequent reassessment of pupils' progress and group assignment, and groupings should be flexible enough to allow for easy movement between groups; within the groups teachers must actually vary their pace and level of instruction to correspond to students' levels of readiness and learning rates.

Due to the inconsistent nature of findings towards ability grouping, Hallam, Ireson and Davies (2004b) suggested that the grouping of pupils should be planned more flexibility to allow for the process or groupings to be altered depending on the needs of year groups.

2.6 International Research on Ability Grouping

It was important to consider different research that has taken place around the world; however this continues to be unequivocal. A great deal of research has been undertaken in different countries, for example in America and China; however this was not necessarily easy to generalise to this country due to the differences in culture and education systems.

Research in America suggested that grouping within schools was in place to allow for individual academic needs to be met (Harris, 2011). In America it was shown that ability grouping can have a negative effect on an individual's self-concept and self-efficacy, and therefore led to impinging on academic achievement and future academic success or failure

(Ansalone, 2001; Ansalone & Ming, 2006); and this was particularly relevant on the affect this had on pupils placed in a low ability group (Oakes, 2005). Venkatakrishnan and Wiliam (2003) expanded this further by stating that pupils in high ability groupings tended to benefit or experience no difference, while those in low ability could fall behind. Harris (2011) highlighted that in American schools even though the same curriculum was followed in different ability groups, there were suggestions that curriculum coverage varied. This could have led to disaffection amongst the pupils from different ability groups if they heard about different topics or curriculum being covered, especially if pupils felt they should be in a different group.

Following on from the disaffection mentioned above, Burris, Heubert, and Levin (2006) found in America that pupils who were placed in top sets in Mathematics, or given the opportunity to participate in accelerated maths classes, were more likely to continue to study the subject further. This raised several questions: could this be the result of pupils who were placed in the top set or given these opportunities were more likely to be gifted in these curriculum subjects, and therefore would naturally continue to study these subjects anyway? Or could it be argued that they only continued to study these curriculum subjects further due to the opportunities they were given, and therefore those not given these opportunities or placed in lower sets were at a disadvantage?

In support of mixed ability teaching, Van Houtte, Demanet, and Stevens (2012) found that high achieving pupils in a mixed school environment experienced greater levels of self esteem, when they were grouped with lower achieving peers.

Yun Dai (2011) indicated the need for further research in China into the effects of ability grouping, as he found that Chinese pupils experienced a decline in academic self-concept,

however, further research was required to ascertain whether this decline was due to the school environment itself or the grouping the individuals were placed into.

Research conducted by Cheung and Rudowicz (2003) in Hong Kong supported ability grouping, as their findings suggested that when there were greater ranges in abilities this resulted in pupils having lower self-esteem. This was suggested to occur due to the greater levels of comparisons that could have occurred between the pupils in the mixed ability lessons.

In 2014, new research took place in China, as Zhang, Chen, and Wang (2014) felt there was not sufficient literature in China that provided empirical evidence regarding ability grouping (ibid, 2014). Ability grouping was organised differently in China, decisions to place pupils in certain groups were not based on performance in individual curriculum subjects, it was based on test scores (ibid, 2014). There were two types, key classes and non-key classes, essentially the key classes were high ability and the non-key classes were low ability. The two classes followed the same curriculum; however the key classes would have been progressed more rapidly. The key class would have had the most privileged resources, including the best teachers for all of their curriculum subjects (ibid, 2014). In contrast to this, it was found in America that class sizes were smaller for lower ability pupils, allowing the same level of resources to be available (Betts & Shkolnik, 2000; Rees, Brewer, & Argys, 2000).

Research in Chinese schools found positive results in relation to mixed ability classes (ibid, 2014), and it was suggested that when pupils were in this mixed environment it would have had a positive impact on low achievers. As supported by other research from America by Meijnen and Guldemond (2002), it was found that at the beginning there was no initial

impact on the high achievers. Further support was given by Ding and Lehrer (2007), where they found that low achieving pupils benefited from being surrounded by high achieving peers. However, they did also explain that high achieving pupils actually benefited more from being surrounded by other high achieving individuals (ibid, 2007).

Shepherd (2012) shared a report from Paris which acknowledged that when pupils were divided by ability, at an early age, this can lead to higher numbers of pupils dropping out of school and lower levels of achievement.

2.7 Mixed Ability Grouping

When groups were not formally organised by ability they were known as mixed ability groups. Mixed ability groups can be organised on a random basis, for example by form group, gender, and social relationships. It could be the case that the groups change for each subject, or they could be in the same mixed ability group for all subjects. Kelly (1974) considered one main benefit of mixed ability grouping was that no pupils would be labelled as a failure for being in a low set, and it created a more positive atmosphere in the school, as when a school moved away from streaming to mixed ability grouping it was described as moving from a "...competitive to a cooperative system..." (ibid, 1974, p. 49).

It should be noted that even if a school has a policy of mixed ability teaching, there was nothing to stop individual teachers having small ability groups within their classes (Ireson & Hallam, 1999). Lou, Abrami, Spence, Poulsen, Chambers, and d'Apollonia (1996) identified this as within-class grouping; it was found that when within-class grouping took place within mixed ability classes, if pupils were placed in small groups they achieved more. This also led to pupils having more positive attitudes, and a higher general self-concept compared to

classes where no form of within-class grouping took place in mixed ability groups. However, Kelly (1974) suggested that within-class ability groups can lead to some negative problems associated with ability grouping, especially as these groups were decided by one teacher, for example pupils could develop a 'self-fulfilling prophecy' and pupils work at the level of the group and work to satisfy the expectations of the teacher but do not try to exceed.

2.7.1 Advantages of Mixed Ability Grouping

Meijnen and Guldemond (2002) highlighted that mixed ability groupings benefited lower achieving pupils, and had no harmful affect on the achievements of more able pupils. Ireson and Hallam (2001) suggested that mixed ability grouping provides equal opportunities for all pupils for learning, as they followed the same curriculum and were given the same instruction and activities to complete. Positive effects of mixed ability grouping have been highlighted including, less chances of pupils to be labelled with a particular set, it was easier to maintain the motivation of pupils working at a slower pace, it allowed for greater flexibility allowing pupils to progress at their own rate, and pupils benefited greatly from peer support (Smith & Sutherland, 2003). Lyle (1999) supported the collaboration that mixed ability teaching allowed, suggesting it was possible to share different experiences and knowledge to facilitate both cognitive and social development.

Previous research by Linchevski and Kutscher (1998) found that low and average ability pupils showed significant gains, and high ability pupils did not suffer when mixed ability groupings were adopted. Hallam and Ireson (2007) identified that pupils were more satisfied with their class when lessons were organised by mixed ability. Research by Lou et al. (1996) suggested that low ability pupils benefited most when placed in mixed ability groups, compared to medium ability pupils who benefited most from ability grouping.

Hallam, Rogers, and Ireson (2008) identified that teachers of practical subjects highlighted their preference for mixed ability classes, however the levels of support for this differed depending on the subject. It was thought that mixed ability was preferred as it was suggested that pupils placed in a low set led to pupils wanting to "...give up..." (ibid, 2008, p. 191).

It has been suggested that teachers find that mixed ability teaching will benefit not only the social aspects of the less able, but all of the class, although it was thought that "...teaching and classroom management were perceived to be easier with structured ability groupings as was meeting the curriculum needs of all pupils" (Hallam & Ireson, 2003, p. 354).

Another advantage of mixed ability groups was that gifted or high achieving pupils can act as role models or motivators for other pupils, however Allan (1991) highlights that the "use" of gifted pupils in this way was surely not more important than meeting their own educational needs. Although, Feldhusen (1989) suggested that pupils were more likely to feel motivated by observing pupils of a similar ability succeed at a task as opposed to fast learners.

Bremner (2008) raised an important point that "all classes even those that have been set are mixed ability to a certain degree" (p.2), and although ability grouping reduces the range of abilities in the class it does not reduce the fact that all pupils have individual needs (ibid, 2008).

2.7.2 Disadvantages of Mixed Ability Grouping

When groups were mixed ability it was suggested by Newbold (1977) that teachers aimed their lessons at the middle of the group, and the faster or slower working members of the class would adapt. Smith and Sutherland (2003) found that mixed ability groups can be

difficult to provide sufficient challenges for the most able pupils. It was also thought that mixed ability classes were associated with indiscipline and disruption in classrooms (Reay, 1998). Research has suggested that this indiscipline and disruption could be caused by increased class sizes, which can lead to a great deal of work for teachers including organisation, preparation, and differentiation becoming an increasingly complex and time-consuming task (Reay, 1998; Smith & Sutherland, 2003). Ireson and Hallam (2003) suggested that "mixed ability teaching places greater demands on the teacher and requires good curriculum resources" (p. 12). It was also suggested that schools spend too much time focusing on outcomes, for example exam marks or grades, as opposed to processes, resulting in good pedagogical practices being forgotten (Reay, 1998).

Benn and Chitty (1997) were able to identify that the type of grouping made no difference to academic achievement, and mixed ability grouping was "...associated with schools that were often more socially successful or easier to run" (p. 466). This was supported by Barker Lunn (1970) who found that academic performance was not affected by how a school organises groups, and that progress was linked to the effectiveness of individual teachers.

2.7.3 Differentiation

Wiliam and Bartholomew (2004) found that "...teachers teaching setted classes tended to treat the whole class as being of identical 'ability' and made little or no provision for differentiation" (p. 200). However, comparing this to teachers in mixed ability groupings, where a wider ranges of approaches was used, and a greater account of individual differences were made as potentially there was a bigger range of abilities (ibid, 2004). It has been identified by Brulles and Winebrenner (2012) that teachers were more likely to

consistently differentiate curriculum and instruction for gifted individuals, when there were a group of gifted pupils.

However, it was interesting to note that Abraham (2008) questions previous research with regard to mixed ability groupings, and whether pupils have been questioned on their experiences with mixed ability classes or mixed ability teaching. It could be possible that comments relating to pupils disaffection with mixed ability, could be related to the lack of effective mixed ability teaching (ibid, 2008), where previous experiences could have been negative, with regard to tasks set and individual attention given to pupils.

Ireson, Clark and Hallam (2002) suggested that even an ability set group will include a wide range of abilities, so an ability set group should not be considered to all be at the same level and will require levels of differentiation to meet the needs of all pupils. Plucker, Robinson, Greenspon, Feldhusen, McCoach, and Subotnik (2004) suggested that it was very important to consider the individual needs of each individual pupil, including their self-esteem, family expectations, and supportive learning environments at home.

2.8 Differences in Selective Independent (Private) and Non-Selective (Comprehensive/State) Schools

Due to the unique stance of this research into an independent selective school, it was felt important to highlight the differences that occur between independent schools and state schools, as previously research into ability grouping has been focused upon state or grammar schools.

Selective education has been found as one factor which can influence educational attainment, where significantly higher examination results are expected for pupils in a fully

selective system, compared to pupils in a fully comprehensive school (Marks, Cox, & Pomian-Srzednicki, 1983). Previous research (Ahmavaara & Houston, 2007) considered that pupils in grammar schools have higher achievement aspirations, and greater levels of confidence compared to those in non-selective schools. However, Hallam and Ireson (2003) conclude that there was little difference between selective and non-selective schools in terms of attainment in national tests, when intake factors are taken into consideration. Intake factors include prior attainment and social class (Gray, Jesson, & Jones, 1984). However, Fogelman (1984) highlights that it can be virtually impossible to compare selective and non-selective schools due to the vast variety in the intake, for example both ability and social class. Hallam and Parsons (2013) identified that the likelihood of streaming, where pupils were taught in an ability groups for all or most subjects, was much lower in fee paying schools than state schools.

Research has suggested that differences in class, gender, and ability were more important than the type of grouping or system that the school uses when predicting attainment (Glaesser & Cooper, 2012).

When considering independent schools the involvement that parents have should be considered, as they select the school which they feel shares the same views they have. This could be they support the belief that ability grouping was the most ideal way for their child to be taught, so if a school were to change their policies they might be faced with resistance from parents. Lu (2012) highlighted that schools face pressures to compete with other schools to ensure they continue to attract pupils, and would not want to be in a position where they decline in pupil numbers or face the possibility of losing teachers. Therefore the

practice of mixed ability grouping may be affected due to external pressures that schools face due to the competition with other schools (Hallam & Ireson, 2003; Lu, 2012).

Having looked at the positive and negative effects of ability grouping, mixed ability teaching, and considering this unique Case Study environment of being an independent secondary school, the review now focuses on the motivational effects ability grouping can have on individuals.

2.9 Motivation of Pupils Related to Ability Grouping

This section looks at the effect ability grouping can potentially have on motivation, and seeing how individuals can react to success and failure.

Research has suggested that placement in a low ability set can have implications on the levels of pupils' motivation towards the subject and levels of their self-efficacy (Bandura, 1997; Muijs & Dunne, 2010). This was an important factor as research has found a positive relationship between intrinsic motivation and academic achievement (Broussard & Garrison, 2004; Goldberg & Cornell, 1998).

Deci and Ryan (1985) suggested that intrinsic motivation depends on perceptions of competence; therefore if pupils were placed in low sets this can impact upon the perceptions of their ability. Pupils' perception of competence can be derived from comparisons with other individuals (Bandura & Schunk, 1981); these comparisons can be made greater if pupils were in mixed ability groups where there could be vast differences in abilities.

Self-efficacy can be defined as a person's judgement about their capability to successfully perform a particular task (Bandura, 1986a). It was suggested by Bandura (1992a) that self-

efficacy beliefs were constructed from four principal sources of information: enactive mastery experiences that serve as indicators of capability; vicarious experiences that alter efficacy beliefs through comparison with the attainment of others; verbal persuasion of social influences that one possesses certain capabilities; and physiological and affective states from which people partly judge their strength and vulnerability to dysfunction. Bandura and Schunk (1981) were able to identify that perceived self-efficacy was accompanied by high-performance attainments, so if an individual was able to maintain high levels of perceived self-efficacy this will lead to more success. The key to maintaining this high level of self-efficacy and interest within a subject was the ability to master skills or tasks, with this mastery it was more likely to maintain the interest of individuals (Bandura, 1982a, 1982b). It was also highlighted that a sense of personal efficacy in mastering skills was more likely to create interest in tasks, than self-perceived inefficacy in performing tasks to a competent level (ibid, 1982a). Individuals avoid tasks if they believed they exceeded their abilities, however if they became fully involved and performed confidently in tasks, they then believed they were capable of achieving (ibid, 1982b).

Specifically, motivation could be affected if learning tasks were too easy or too difficult; the level of challenge has to be appropriate to the individual, and if tasks provide optimal challenge this would lead to their motivation flourishing (Deci & Ryan, 1985). Deci and Ryan (1985) identify that intrinsic value was the enjoyment that an individual can gain from completing a task, and this could lead to positive psychological consequences.

Therefore, Adams-Byers, Squiller Whitsell, & Moon (2004) suggested that the easiest and most practical method to meet the needs of all pupils appears to be to utilise ability grouping. It was suggested that ability grouping would allow pupils to work at a level that

was most suited, and be challenged at a level that was appropriate. If the level or challenge was not appropriate and pupils do not experience success then this could have a devastating effect on their motivation. Interestingly, Ireson, Hallam, and Plewis (2001) suggested that an individual's self-concept was more positive in schools with moderate levels of ability grouping, as opposed to schools with higher levels.

In conclusion, as long as the needs of pupils were being met, which means they were stretched and challenged with tasks at the appropriate level, it should be irrelevant how the groupings for curriculum lessons were organised. However, it could be suggested that ability grouping may more naturally have allowed for this to happen.

2.9.1 Self-Esteem

McClelland (1961) identified that motivation was individual to each person, and could result in the need to achieve or the need for affiliation. This motivation was inherent to human behaviour, and would be unique to different individuals (Maslow, 1999; 1943; Rogers, Stevens, Gendlin, Shlien, & Van Dusen, 1967). Therefore it can be difficult to determine what affects a pupil's motivation, as every individual will react differently. An individual's perception of themselves and their capabilities are vital in their success or failure in achievement settings (Schunk & Parajes, 2005).

Self-esteem can also be closely linked to self concept, which Marsh and Hau (2003) suggest has an important impact on the academic achievement of pupils, which includes their accomplishments, persistence, how they feel about themselves, and their educational decisions. Research has found that pupils in lower ability groups were more likely to develop low self-esteem (Hallam & Ireson, 2003).

Marsh and Hau (2003) go further to highlight the Big Fish Little Pond Effect (BFLPE) where pupils compare their own academic achievement with the achievement of others, and use this comparison to form their own academic self-concept. A high achieving pupil may move to a selective school where the average ability levels of other students was high, they may fall into the average achieving category, so they move from being a big fish in a small pond to a small fish in a big pond (Marsh, Hau, & Craven, 2004). This move from being the top of the class to achieving average results could have detrimental effects to the levels of self-concept this pupil has, and therefore lead to affecting academic achievement (Marsh & Parker, 1984). Deci and Ryan (1985) suggested that when individuals were in competition with others and they felt pressurised to succeed this could lead to decreasing intrinsic motivation.

Marsh, Trautwein, Ludtke, Baumert, and Koller (2007) found that the BFLPE effect, identified in selective schools in America, was long lasting and continued once pupils had left school, therefore the self-concepts that individuals gain about themselves at a young age can stay with them for a long time. Marsh (1987; 1991), and Thijs, Verkuyten, and Helmond (2010) argued that attending selective schools can lead to reduced academic self-concept for pupils of all achievement levels. Marsh, Chessor, Craven, and Roche (1995) compared pupils of similar ability in a gifted and talented programme and in mixed ability classes, and were able to identify that pupils experienced a decline in academic self-concept. This was supported by Preckel, Gotz, and Frenzel (2010) who maintained that gifted students who moved from mixed ability classes to a high ability set, reported significant decreases in academic self-concept. However, Coleman and Fults (1985) found that pupils in the top sets at academically selective schools experience little or no decline in

self-concept. This was supported by Van Houtte, Demanet, and Stevens (2012) who found that high achieving pupils in a mixed school environment experienced greater levels of self-esteem when they were grouped with lower achieving peers.

Marsh and Hau (2003) found that academic self-concept was affected positively with individual achievement. When placed in ability groups, high ability pupils have lower self-esteem, whereas low ability pupils have high self-esteem (Kemp & Watkins, 1996); this could fit with the BFLPE where pupils may have experienced academic success and therefore led to higher self-esteem. Hallam and Deathe (2002) suggest that there were complex relationships between structured ability grouping and self-concept, which can be extenuated by the school and teachers. It was also suggested that the longer a pupil was in a low set, the greater the negative effects on self-concept would potentially be (ibid, 2002).

2.9.2 Self Efficacy

Levels of motivation could be specifically related to whether an individual has belief in their own ability and if they can succeed (Duda & Treasure, 2006), and this was a key factor when attempting to accomplish tasks, regardless of the underlying skills (Bandura, 1992). Therefore, if pupils have been placed in a low set they can begin to doubt their own abilities in the subject, and this can lead to affecting the level and persistency of motivation (Bandura, 1992; 1982a). An individual's self-efficacy belief was a key factor of how competent an individual can be perceived to be, for example different people with similar skills, or the same person under different circumstances, may perform poorly, adequately, or extraordinarily, depending on fluctuations in their beliefs of personal efficacy (Bandura, 1997; Bandura & Locke, 2003). It was suggested that it was mainly perceived inefficacy in coping with events that potentially seem unachievable that gives rise to both fearful

expectations and avoidance behaviour (Bandura, 1986b). Bandura and Jourden (1991) suggested that the belief an individual has in completing a task can be overcome by self-doubt, causing even the most highly able individual to make poor use of their capabilities under circumstances that undermine beliefs in themselves. Therefore if an individual was placed in a set that was either not what they expected, or not appropriate for them, this could have detrimental effects on their self-efficacy; as Muijs and Reynolds (2011) highlighted setting can harm individual's self-concept when a pupil was placed in a low set. Bandura (1992) goes further to suggest that in taxing situations individuals can dwell on their personal deficiencies, and can be slow to recover from setbacks or failures.

However, if pupils have high levels of self-efficacy they would be keen to try new challenges, and heighten their level of effort in the face of failures or setbacks. Interestingly, it has been suggested that optimal challenge and positive feedback can enhance intrinsic motivation (Danner & Lonky, 1981; Deci, 1971; Deci & Ryan, 1995), therefore if pupils were placed in the appropriate set and challenged appropriately this can have a positive effect on their levels of motivation towards the subject. This could not only affect the level of motivation of the pupils, but can also cause them to show the helpless response (Dweck, 1975; 2000; Licht & Dweck, 1984). Dweck describes this helpless response where pupils doubt their intelligence when faced with failure, and lose faith in their ability to complete tasks, and pupils can forget their previous successes (Diener & Dweck, 1980). Therefore, if pupils experience repeated failure this can impact their belief to complete future tasks and all of these failures would outweigh the successes that were achieved. Certain pupils were more prone to display this helpless response than others, whereas others would display mastery-orientated responses (Dweck, 2000). Pupils displaying mastery-orientated responses would

generally have a more hardy response to failure, as they would be more able to remain focused on achieving mastery despite any potential difficulties they were experiencing (Diener & Dweck, 1980; 1978; Dweck, 2000).

Dweck (2000) outlines how bright girls can be less resilient in their self-beliefs than average ability girls when faced with new challenges. This was interesting to consider when focusing upon the Case Study school, which was a selective girls' school. In this environment there was the potential to have a high proportion of the pupils fitting into the high ability category.

2.9.3 Expectancy-Value Theory

The Expectancy-Value theory suggests that individuals' choice, persistence, and performance can be explained by their beliefs about how well they think they will do in a task; the higher the expectancy individuals have the greater the levels of motivation to complete the task (Bandura, 1997; Wigfield, 1994; Wigfield & Eccles, 2000; Wigfield & Eccles, 1992). Expectancies and values were assumed to be influenced by task-specific beliefs such as ability beliefs, the perceived difficulty of different tasks, and affective memories which were all individual to the pupil (Eccles, 1983; Wigfield & Eccles, 2000; Wigfield & Eccles, 1992). Ability beliefs can be defined "...as the individual's perception of his or her current competence at a given activity" (ibid, 2000, p. 70). This was different to expectancies for success, as ability beliefs are focused on the present, whereas expectancies for success are looking at the future (ibid, 2000).

Pupils were able to form beliefs about their ability through their own evaluations of their competence in different academic areas (Wigfield, 1994). It has been suggested that pupil's

perceptions were greatly affected by their teachers' attitudes and expectations of them, and teachers treat pupils differently depending on whether they have high or low expectations (Eccles, 1983; Wigfield & Eccles, 1992). The expectations teachers form can be based upon the set that pupils have been placed in, with low expectations being assigned to pupils in low sets (Hallam & Ireson, 2003; Linchevski & Kutscher, 1998; Smith & Sutherland, 2006).

2.9.4 Avoiding Failure

Research has suggested that ability grouping was best suited to high ability individuals as it offers them suitable challenge and the chance to reach their full potential (Hallam & Ireson, 2003; Wiliam & Bartholomew, 2004). However, it has been suggested that high ability pupils were more likely to be worried about failure, and the most likely to question their ability (Dweck, 2000). If pupils were placed in the wrong set and they find tasks too difficult this could affect their levels of self-concept, and affect their views towards this subject. So the key was ensuring that pupils were placed in the appropriate set so that they do not experience failure too often, and if they do experience failure they then learn how to deal with this situation. If pupils were placed in a set where they felt they were not capable of achieving tasks, they may have experienced anxiety, and this could have led to them trying to reduce the importance of the task to attempt to reduce their levels of anxiety; as failing at an insignificant task would produce less anxiety than an important task (Wigfield & Eccles, 1992).

Ability grouping has been seen as an opportunity to make it easier to provide experiences of success for all pupils, and also provide greater chances for peer learning as pupils do not perceive great disparities between each other (Muijs & Dunne, 2010). This similarity in abilities would potentially have enabled teachers to set tasks at appropriate levels, allowing

pupils to have experienced success. This avoidance of failure or negative experiences could potentially have affected pupils in the future, as Dweck (2000) found that negative experiences have impacted on thoughts of their ability, and have potentially caused setbacks in the future.

Weiner (1985) proposed through his Attribution theory state that individuals feel that ability was relatively stable, which they have no control over and this feeling can increase as children get older. It was also suggested that if individuals attribute success to ability, this will have led to greater levels of motivation, whereas attributing failure to a lack of ability could have a negative effect on motivation (ibid, 1985). If individuals have the belief that their ability was stable and cannot be changed, and they have been placed in a low set and in their view doing badly, and attributed this poor performance to a lack of ability, they may lack self-esteem and lose interest in this subject (Wigfield & Eccles, 1992). Dweck (2000) found that individuals who were more prone to a helpless response would see failure as a bad thing, and this would have a negative effect on their beliefs of their own ability. The failure could have been being placed in a low set, which could have then had a negative effect on their beliefs of their ability in that curriculum subject area.

In the subject English, it has been reported that setting was associated with lower self-concepts of students in high ability groups, and with higher self-concept of students in low ability groups, consistent with social comparison theory. In Mathematics and Science, academic self-concept was unaffected by ability grouping. It appears, therefore, that the effects of ability grouping may vary from one subject to another, and different aspects of self-concept were sensitive to different elements of ability grouping in the school, as a whole and in specific subjects (Ireson & Hallam, 2009).

2.10 Issues Raised from Review of Literature

It was evident from the literature review that there has been extensive research carried out in the area of ability grouping, ranging from the 1960's to the current day, yet results are still inconsistent and practices of ability grouping differ greatly between different institutions. The review also highlighted that this area of research is incredibly complex and challenging, and further research is needed to clarify several issues that have been raised.

Hallam and Ireson (2003) identified that most previous research has not considered the comparable effects of different curriculum subjects when looking at ability grouping; and the research outlined above does not offer experiences from independent selective secondary schools with regard to the experiences of pupils in ability grouping and mixed ability groups. This is where this research adds to the existing body of knowledge and further complements the understanding of how ability grouping is used in different institutions. The independent sector offers a different view of how institutions work, as this was potentially a highly pressurised environment which would always strive for the highest and best examination results, to allow pupils to go to further education at the top universities. The independent sector also offers a different perspective from other schools, where most research outlined above referred to state or grammar schools.

The purpose of this research was to identify whether there was a difference between pupils' experiences in an ability grouped lesson compared to a mixed ability lesson across different curriculum subjects, in an independent selective girls' school environment.

The next chapter outlines the pilot study, referred to as the Institutional Focus Study (IFS), which was an exploratory small scale exercise in data collection, to direct the Case Study

research of the Theses. Research questions which were designed for the IFS can be found at 3.1.2, and then from the IFS and literature review research questions were designed for the full scale research, which can be found at 3.12.

Chapter Three

The Institutional Focused Study (IFS)

3.0 Introduction

This chapter comprises the Institutional Focused Study (IFS), an element of the Doctorate of Education programme, which took the form of a Pilot Study; it was an exploratory small-scale exercise in data collection, conducted to guide and direct the larger main Case Study research. The IFS was designed to focus on the views of pupils regarding ability grouping in two different subjects; one that uses ability grouping (Mathematics) and one that uses mixed ability grouping (Philosophy and Religion). This chapter outlines the data collection methods that were used (3.4, 3.5, and 3.6), analyses the results (3.8), and provides a summary of the decisions that were made for the larger full-scale research (3.12).

3.1 Purpose of the Pilot Study

The purpose of this pilot study was to carry out an initial exploration of a small sample of the intended participant group. Such investigation of the target population was essential to identify any areas that may be unclear, and to test the questions to ensure that participants were able to understand what is required of them (de Leeuw, 2008; Mertens, 1998). A pilot study can also give an initial insight into the study (Janesick, 1994), allowing a full understanding of the context to be gained and methods of data collection to be tested. The pilot of all procedures was vitally important, as it allowed for the effectiveness of all instruments and procedures to be tested, as it must be possible to demonstrate that all procedures and instruments can be used accurately and reliably (Thomas & Nelson, 2001).

Initially, the area of concern of the research project was potentially quite vast, therefore the pilot study also allowed for greater refinement and understanding of the area of study. Moreover, the pilot study provided the opportunity to gain further information regarding the institution, as, even though I am a teacher at this institution, it was not always possible to have a full picture of what takes place within other departments.

3.2 Focus of the Institutional Pilot Study

The focus of the Institutional Focus Study, was to identify what differences there may be in the perceptions of pupils between two curriculum subjects which are organised differently. The two curriculum subjects chosen were Mathematics, and Philosophy and Religion. The curriculum subjects were selected to reflect the literature which identified Mathematics as being the most common subject to be grouped by ability, followed by Science, Modern Foreign Languages and English (Hallam & Parsons, 2012). Philosophy and Religion was selected as a comparison to Mathematics as the groupings were organised by mixed ability.

3.2.1 Research Questions for Pilot Study

The research questions for the pilot study were:

1) How do pupils perceive their learning experiences in an independent selective school setting, comparing a mixed ability subject (Philosophy and Religion) and an ability grouped subject (Mathematics)?
2) a) Do pupils feel differently depending on how subject groupings are organised?
   b) Is the motivation of pupils affected by ability grouping?
   c) Do pupils have confidence in the system of setting, for example movement between sets at appropriate times?

d) Is the progress of pupils hindered by mixed ability teaching?

e) Do pupils feel anxious about not being able to keep up or meet the demands of the lesson?

3.3 The Institution

3.3.1 The Institution and Research Context

Informal discussions with teachers took place to allow for information to be gathered regarding how teaching groups were organised historically. These discussions took place with a member of staff who had held their position at school for a substantial period of time, as this allowed them to be able to share the historical practices that had taken place. The Mathematics department have utilised ability grouping since at least 1982, whilst Modern Foreign Languages adopted this practice in 1988, with Science doing so in the GCSE years since 1980. This information was gained from ability grouping being in place in the department when the longest serving teacher began at the school; therefore it was possible that ability grouping could have been in place even longer.

From reading the school's policies it was possible to identify that the rationale for organising groups for curriculum subjects and teaching methodologies was surrounded by treating each pupil as an individual. The Individual Learning policy outlines the aims that the school has with regard to teaching:

> "We aim to espouse teaching methodologies which enable these profiles to be accommodated in ways which vary from the structural (e.g. ability divisions) to the subtle (e.g. question types), enabling the strongest students and the weaker ones to be supported, in order for all to reach their potential..." (Individual Learning Policy, 2015, p.2).

The school recognised that even though it was a selective independent school it considers "...all students at the school to be gifted and talented" (Individual Learning Policy, 2015, p. 2; Appendix 1) and that not all girls will be "...equally talented in all spheres" (ibid, p. 2). The Curriculum Policy (2015) identified that differentiation was considered a very important issue in the classroom, to ensure that each pupil was given the opportunity to reach her full potential, with differentiated activities being included in schemes of work (pages 2 and 3 of the curriculum policy can be found at Appendix 2).

In their department handbook, the Mathematics department highlights that the most important factor for determining a set was a pupil's performance throughout the year. Consideration of speed of working; ability to grasp new ideas; whether extra assistance was needed; quality of homework and class work; and test and examination marks were also taken into account (relevant pages from the Mathematics department handbook, detailing their policy on ability grouping can be found at Appendix 3). However, other departments do not outline as clearly the reasons for determining sets, including French, chemistry, biology and physics.

3.3.2 Mathematics

In the Mathematics department ability grouping begins in Year 8 and is in place until the end of Year 11. Where the top set takes their GCSE early, in Year 10, they begin studying GCSE material in Year 9. In Year 11, pupils begin to study the Free Standing Mathematics

Qualification; this was designed to help prepare pupils for either A Levels or the International Baccalaureate (IB). There was potentially pressure on the Mathematics department to ensure that all girls are achieving an A*, so it was felt important that girls in the top set were ready and prepared to take their GCSE early.

3.3.3 Class sizes

For academic year 2009-10 the school moved from four form entry to five form entry, to reduce class sizes; at the time of writing, classes were between 21-23 pupils, whilst in the past, classes were between 26-27 pupils. Pupils were taught in their form groups throughout their first year, in all curriculum subjects.

After the first year, ability grouping begins in certain curriculum subjects, and class sizes differ depending on the set. Tables 3.1 and 3.2 give an indication of class sizes for Mathematics and Philosophy and Religion. In Table 3.1, the set refers to the ability group that pupils were placed into for Mathematics, for example set 1 is the top set. The form group, outlined in Table 3.2, represents the mixed ability groups in Philosophy and Religion.

Table 3.1 Class sizes for Mathematics in academic year 2012-13

	Set 1	Set 2	Set 3	Set 4	Set 5	Set 6
Year 8	27	25	20	15	12	10
Year 9	28	23	18	15	13	9

Table 3.2 Class sizes for Philosophy and Religion in academic year 2012-13

	Form 1	Form 2	Form 3	Form 4	Form 5
Year 7	22	24	22	21	22
Year 8	22	22	20	23	22
Year 9	22	21	22	21	21

The Head of Mathematics at the school stated that class sizes were larger in top sets as it allows for interaction and ideas to be developed, whereas lower sets were smaller as this allowed for greater individual attention from the teacher, to help work through problems and gain confidence. A Mathematics teacher at the school suggested that a good student will thrive in a large group with ideas bouncing off each other and where they can inspire each other, and are able to work at a fast and demanding pace, whereas lower sets have smaller class sizes, allowing for a less able student who will require individual attention to solve their particular difficulty.

3.4 Overview of Data Collection

For the purpose of data collection, two methods were utilised, questionnaires and focus groups. The questionnaire was chosen to allow a relatively large number of participants to be targeted in a relatively short period of time (Creswell, 2015; Thomas, Nelson, & Silverman, 2011), whilst the focus group allowed for greater detail in certain topics (Morgan, 1998a; ibid, 2011); the precise number of participants are discussed later in this chapter (3.5.2 and 3.6.2). The questionnaire and focus group questions for the pilot study were designed from the research questions (3.2.1). The questionnaire was administered first, and then a smaller group of participants were randomly selected to be involved in the Focus Group. The participants for the focus groups were selected randomly depending on their availability with regard to their timetabled lessons. The questions for the Focus Group were designed at the same time as the questionnaire and were not dependent upon the results of the questionnaire.

3.5 Questionnaire

A questionnaire was selected for a number of reasons; firstly, it prevented the personal bias or opinion of the researcher impacting the research (Creswell, 2012), whilst also creating a substantial amount of data. It was possible to analyse this data quickly and efficiently through a statistical package, allowing for the data to be analysed objectively (Cohen, Manion, & Morrison, 2011). Questionnaires could potentially have allowed for greater honesty, compared to the focus groups, as they were anonymous, however, there was the possibility that participants may not have understood certain aspects of the questionnaire and may not have felt able to ask the researcher for clarification (ibid, 2011). In this research, it was hoped that this was prevented by the researcher being available when the questionnaires were completed, whilst still maintaining anonymity. An area to consider with reliability and validity was the number and spread of the participants; the spread and volume of participants was important, as if the sample was too small then this would not be representative (ibid, 2011). This is explained and addressed in greater detail in Chapter Four (4.3).

Questionnaires have been criticised for being artificial and lacking the ability to gain in-depth detail from participants, as questions only obtain a superficial understanding, focusing on specific and narrow variables (Creswell, 2012; Cohen, Manion, & Morrison, 2011). When participants were completing the questionnaire it can be impossible to ascertain how much thought and effort has been put into answering the questions. This was, in part, combated by the researcher being available at all times when the questionnaire was completed. It can also be hard to tell if participants truly understand all questions, and they may not feel confident to ask.

3.5.1 Design of the Questionnaire

The questionnaire consisted of statements, both positive and negative, relating to the grouping of subjects and pupils' feelings and attitudes towards these groupings, and utilised a Likert scale (Likert, 1932), with a view to it being brief and easy for the participants to complete; this was particularly pertinent given that children were completing the questionnaires. The participants simply had to indicate to what degree they agreed or disagreed with each statement (Dowling & Brown, 2010; Peterson, 2000; Verma & Mallick, 1999). Generally, with Likert scales, a five point scale was utilised, ranging from strongly agree to strongly disagree, with a neutral option. It has been argued that this neutral option should be dropped, as it forces the participants to make a decision to opt for, whether it be to agree or disagree with the statement (Dowling & Brown, 2010). However, some researchers argue that the neutral option should be facilitated as it is a perfectly valid response, and it will hopefully prevent questions being omitted or selecting both agree and disagree as options (ibid, 2010). For this questionnaire the neutral option remained to allow participants to answer every question, and hopefully preventing any questions being omitted. The Likert scale was utilised as it allowed for a wider choice of expression compared to just having an option of yes or no to determine whether participants agreed with statements (Thomas, Nelson, & Silverman, 2011).

Two questionnaires were designed; one for the ability grouped lesson and one for the mixed ability lesson. This was done to allow some statements to be targeted at the different situations; however the majority of statements were identical to allow comparisons to be made. In total 11 statements were created for both questionnaires, with the statements

being developed from the research questions. The statements are given in Table 3.3 below (the actual questionnaires that were utilised can be seen at Appendix 4).

Table 3.3 Questionnaire Designed from Research Questions

Research Question	**Statement in Questionnaire**	**Question Number**
a. Do pupils feel differently depending on how subject groupings are organised?	– I feel confident in this Maths/Philosophy & Religion lesson	1
	– I enjoy my Maths/Philosophy & Religion lessons	2
	– I wish that all lessons were taught in mixed ability groupings (e.g. in form groups)	7
	– I prefer the challenge of being placed in a set	8
b. Is the motivation of pupils affected by ability grouping?	– I feel confident in this Maths lesson	1
	– I prefer the challenge of being placed in a set	8
c. Do pupils have confidence in the system of setting, for example movement between sets?	– I believe that the reason I am in this set is only because of my end of year exam result	5
	– I am happy with the set that I have been placed in for this subject	10
d. Is the progress of pupils hindered by mixed ability teaching?	– I feel challenged and stretched in these lessons	3
e. Do pupils feel anxious about not being able to keep up or meet the demands of the lesson?	– I feel challenged and stretched in these lessons	3
	– I worry that I am not able to keep up with others in the lesson	4
	– I am nervous that I will not be able to meet the demands of this subject	11

3.5.2 Participants for Questionnaire

The participants were from the first three year groups in the school (Lower School), i.e. Year 7 (aged 11-12), Year 8 (aged 13-14), and Year 9 (14-15). In total there were 328 pupils in the Lower School. Pupils could only take part in the study and complete the questionnaire if their parents had returned a consent form. In total 154 pupils completed the questionnaire; 59 Year 7 pupils, 49 Year 8 pupils, and 46 Year 9 pupils, giving 47% of the Lower School population.

The questionnaire was administered at the beginning of the lesson, to be as minimally disruptive as possible to the lesson. Also this prevented the possibility of any effect from recent experiences within the subject lesson, for example a bad mark received from a piece of homework.

3.5.3 Analysis of Questionnaire Data

In order to arrive at a score for each participant, a numerical value was given to the response made to each statement, the values being reversed for the positively and negatively worded statements. On a five point Likert scale, if the respondent 'strongly agrees' with a positive statement, a value of 5 is given, if they 'strongly agree' with a negative statement a value of 1 is given, if they 'disagree' with a negative statement a value of 4 is given, and so on (Cohen, Manion, & Morrison, 2011).

The Statistical Package for Social Sciences (SPSS) was utilised for statistical analysis of the data and a paired samples t-test was carried out to compare the scores of the same group, which were collected on two different occasions (Pallant, 2010). A paired samples t-test

allowed an opportunity to compare the pupils' responses from two different environments (a mixed ability group and an ability set group).

All questionnaire responses were checked when data was entered into SPSS. If a respondent had circled the same number for all items, both positive and negatively worded, their questionnaires were excluded on the basis that they have probably not read each question, however no questionnaires like this were identified. Once data were entered into SPSS, the data were checked for errors and outliers were dealt with (Pallant, 2010). Errors were checked by ensuring that each of the variables were within the range (1-5). Descriptive statistics were calculated, which included the mean, standard deviation, range of scores, skewness and kurtosis. If outliers were found they were dealt with by removing the data for that one participant completely. However, no outliers or missing data were found. All outputs created from SPSS can be found at Appendix 5.

3.6 Focus Group

Focus groups were used to allow further exploration of areas that lay outside the realm of the questionnaire, giving the opportunity to explore individuals' experiences, opinions, and concerns (Kitzinger & Barbour, 1999). It was suggested that focus groups provide an opportunity to derive interpretations, not just facts (Warren, 2001). One characteristic of focus groups that differs from other qualitative methods was the group discussion that was created as opposed to questions being answered (Vaughn, Schumm, & Sinagub, 1996), allowing for a collective view to be obtained as opposed to an individual view, as the participants interact with each other as opposed to the researcher (Cohen, Manion, & Morrison, 2011). However, a drawback to using focus groups was the interaction between participants, which could lead to non-participation or dominance of some individuals

(Cohen, Manion, & Morrison, 2011). Focus groups are economical on time, producing a relatively large amount of data in a relatively short period of time (ibid, 2011); however, data can be challenging to analyse at times with a number of participants talking and potentially talking at the same time.

One aim of the IFS was to learn more about participants' experiences and thoughts, specifically giving the participants more opportunity to share personal stories or express their feelings. The focus groups were conducted with four pupils from each year group. The potential issue with having small focus groups was that it could cause a burden to the participants to ensure that the conversation continues, especially if the topic is of no interest to them. This could be the case when working with children, and possibly more likely to occur with year 7, where the pupils are only aged between 11 and 12 years old. This is something that may be considered after the pilot study, and the group size may increase to six pupils. This final decision on the size of the focus groups is outlined later in Chapter 4.

3.6.1 Design of the Focus Group

The focus group schedule was devised beforehand, and this included questions to ensure that certain topic areas were covered; during the focus group the order of the questions were referred to in a very relaxed manner and only utilised to stimulate conversation between the participants if needed (Drever, 2003; Rapely, 2004). It was important to have these in place to ensure that all areas were covered; however they were not followed in a strict line of questioning, as it was important to allow the participant group to have freedom to follow their train of thought, and not be caught in a very rigid stream of questions

(Bogdan & Biklen, 2006). The focus groups took place in a meeting room, which was a neutral place where it was hoped that the pupils did not feel under pressure.

The focus group questions were designed from the Research Questions and can be seen in Table 3.4 (Questions from the Focus Groups can be found at Appendix 6).

Table 3.4 Focus Group Questions Designed from Research Questions

Research Question	Question in Focus Group	Question Number
a. Do pupils feel differently depending on how subject groupings are organised?	– Do you prefer to be taught in mixed ability groups (e.g. in form groups)?	3
	– How would you describe the sort of work you do during lessons? e.g. small tasks/work sheets, projects in groups, work from text books, copying from board	11
b. Is the motivation of pupils affected by ability grouping?	– How would you describe your feelings when discussing with friends/family what sets you are in?	4
	– How do you refer to your sets when discussing this topic with friends? e.g. top set/bottom set, set 1/set 2/set 3	5
	– Do you like the fact that which set you are in is mentioned on your report?	6
	– How do you refer to lessons when you are taught in mixed ability groups?	7
	– How do you feel about being in a top set? / How do you feel about being in a middle set? / How do you feel about being in a bottom set?	8
	– Are you aware of what sets your friends are in?	9
c. Do pupils have confidence in the system of setting, for example movement between sets?	– Do you know how these sets are decided?	1a
	– Do you feel there is opportunity for movement between sets?	2
	– How do you feel about end of term exams? Why do you think these are used?	2a
d. Is the progress of pupils hindered by mixed ability teaching?	– Do you experience occasions when you have finished a piece of work long before others in your class?	5
	– How do you feel about the numbers of girls in your group?	10
	– Is this a large number/small number in your view?	10a
e. Do pupils feel anxious about not being able to keep up or meet the demands of the lesson?	– Do you feel nervous that you may not be able to keep with others in the class?	14
	– Maybe feel anxious about asking questions that you think others may know already?	14a

3.6.2 Participants for Focus Group

The focus groups were conducted in small groups of four to encourage the participants to reminisce, share experiences, and talk freely (Bogdan & Biklen, 2006; Delamont, 2002; Morgan, 1998a). There were 11 groups in total. According to Morgan (1998b) and Creswell (2012) for most purposes four to six participants would be considered a relatively small group, so therefore this number of participants seemed most suitable.

It was interesting to consider the idea of saturation with regard to collecting data, as highlighted by Glaser and Strauss (1967), where data saturation was reached when there was enough data or information for the study to be replicated (O'Reilly & Parker, 2013). It should be considered that whether 2 focus groups or 20 focus groups were conducted in different research studies, data saturation could still occur in both. As it was suggested by O'Reilly and Parker (2013) that data saturation was not related to the point where no more new ideas emerge, but where all categories were satisfactorily met or where differences or connections between ideas of the categories were explained or understood. Therefore researchers need to plan carefully to consider where they feel data saturation would be reached, considering that "...more is not necessarily better than less and vice versa." (Fusch & Ness, 2015, p. 1413).

Participants were selected randomly, to cover pupils from all sets within Mathematics and from a cross section of the year groups, and this can be seen in Table 3.5 below.

Table 3.5 Focus Group Participant Information

Focus Group Number	Year Group	Number of Participants	Groupings	
			Mathematics	Philosophy & Religion
Focus Group 1	Year 7	Four	Mixed	Mixed
Focus Group 2	Year 7	Four	Mixed	Mixed
Focus Group 3	Year 7	Four	Mixed	Mixed
Focus Group 4	Year 7	Four	Mixed	Mixed
Focus Group 5	Year 7	Four	Mixed	Mixed
Focus Group 6	Year 8	Four	Top Set	Mixed
Focus Group 7	Year 8	Four	Middle Set	Mixed
Focus Group 8	Year 8	Four	Bottom Set	Mixed
Focus Group 9	Year 9	Four	Top Set	Mixed
Focus Group 10	Year 9	Four	Middle Set	Mixed
Focus Group 11	Year 9	Four	Bottom Set	Mixed

3.6.3 Analysis of Focus Group Data

The focus groups were audio recorded and field notes were taken in order to provide a record of events that happened during the interview, which could not be picked up on the audio recording, for example body language. This allowed for the meaning and context of the focus group to be captured more thoroughly (Bogdan & Biklen, 2006), especially with focus groups where there were different opinions trying to be captured at one time, therefore the field notes were also used as an aid to determine which participant was talking at which time on the recording.

As soon after the event as possible the focus groups were transcribed from the recording, and both the transcript and field notes were typed (an example of the transcripts can be found at Appendix 7). After this process the transcripts were read and any key areas were highlighted, and a coding process utilised. Coding was thought to be useful as it was suggested that it enabled a definition and meanings to be gained from the data that was being analysed (Charmaz, 2001; Drever, 2003; Gibbs, 2007; Kvale, 2007), and allowed for comparisons to be made and for questions to be asked of the data (Strauss & Corbin, 1990). From the coding process it was then possible to raise the codes into categories. Open coding was utilised by analysing by sentence and paragraph, to identify how participants felt about issues relating to ability grouping and their motivation. Open coding was selected as it allowed the text to be examined by making comparisons, and then once coded it was possible to compare how it varied with other similarly coded texts (Gibbs, 2007).

3.7 Ethical Considerations

Ethics has been defined as "a matter of principled sensitivity to the rights of others...while truth is good, respect for human dignity is better" (Cavan, 1977, p. 810). Ethical concerns throughout all research are vital to consider, not just at the beginning but throughout all research (Creswell, 2012); and different ethical concerns may arise at different stages of the research process (Cohen, Manion, & Morrison, 2011). In particular Wellington (2000) highlights that all "ethical concerns should be at the forefront of any research project and should continue through to the write-up and dissemination stages" (p. 3). Cohen, Manion and Morrison (2011) highlight the following as potential ethical issues that may arise; the context of the research; procedures; methods of data collection; participants; type of data collected; and how the data will be reported. To ensure confidentiality throughout the research pseudonyms were given for names of pupils, staff and the school.

Initially institutional consent was gained verbally from the Head Mistress and was later confirmed in writing. Further consent was then gained from the head of department from both Mathematics and Philosophy and Religion, and the heads of department checked with all members of their departments. It was important to gain the full agreement of all staff involved, as the researcher should be a guest in their environment (Creswell, 2012); this way the researcher can enter the area and observe what takes place in the natural environment, without too much influence on the daily routine of a 'normal' lesson.

A letter was sent to parents of girls in the first three year groups at school to gain their consent. The letter of consent that was signed by parents or guardian can be found in Appendix 8. Consent was gained from the participants, and individuals were made aware of their role in the research. The consent and information that was given to the participants

can be found in Appendix 9. It was vitally important to ensure that consent was gained from every participant, and as the participants for this research are under eighteen years of age, consent has to be gained from their parents or guardians (Cohen, Manion, & Morrison, 2011). Informed consent ensures that the research takes into account ethical considerations of the participants, informing them of the purpose of the research, ensuring confidentiality and anonymity, and allowing participants the right to withdraw at any time (Creswell, 2012; Portelli, 2008); this allows the participants to still have control over the situation (ibid, 2011). This was achieved through written information being given to participants prior to completion of any involvement in the research, and the researcher was always available to answer any questions during data collection.

Approval was gained from the Brunel University Research Ethics Committee which closely follows British Educational Research Association (BERA) guidelines (BERA, 2011) for the research, incorporating work conducted for the IFS and the later full scale research.

3.8 Results and Discussion

In this section results from the questionnaire and focus group are outlined and discussed in relation to the literature.

3.8.1 Questionnaire Results and Discussion

A Paired-Samples t-test was conducted to evaluate the different responses that were completed by participants in an ability grouped environment compared to a mixed ability environment. When a difference was identified between scores it was necessary to identify the size of this difference, this was achieved by calculating the effect size statistic. There are a number of different effect size statistics, however the most common were eta squared

(Cohen, 1988). Eta squared represents the proportion of variance of the dependent variable that was explained by the independent variable. The following guidelines are given to interpret the strength of the eta squared values; .01 = small effect, .06 = moderate effect, and .14 = large effect (Cohen, 1988).

There were statistically significant differences found in some areas, and this can be found in Table 3.6 below.

Table 3.6 Statements where Statistical Differences were identified

Question	Mean	Standard Deviation	Eta Squared Value
1) I feel confident in this Maths lesson	1.94	.80	.04
1) I feel confident in this Philosophy and Religion lesson	1.75	.70	
2) I enjoy my Maths lessons	2.24	.97	.18
2) I enjoy my Philosophy and Religion lessons	1.66	.80	
4) I worry that I am not able to keep up with others in the lesson (Mathematics)	3.63	1.22	.12
4) I worry that I am not able to keep up with others in the lesson (Philosophy and Religion)	4.10	.88	
8) I prefer the challenge of being placed in a set (Mathematics)	2.84	1.04	.03
8) I prefer the challenge of being placed in a set (Philosophy and Religion)	2.67	1.08	
10) I am happy with the set that I have been placed in for this subject (Mathematics)	2.58	1.38	.13
10) I am happy with how the group has been organised for this subject (Philosophy and Religion)	1.93	.91	
11) I am nervous that I will not be able to meet the demands of this subject (Mathematics)	3.46	1.17	.22
11) I am nervous that I will not be able to meet the demands of this subject (Philosophy and Religion)	4.12	.90	

As can be seen from the table 3.6 above, the largest statistical difference was found regarding a participant's anxiety with keeping up with the demands of the lesson, which was

found to be significantly higher in Philosophy and Religion lessons compared to Mathematics, where the eta squared statistic .22 indicated a large effect size.

Closely linked to this, was the fact that a difference was identified between the anxieties that participants felt towards being able to keep up with other pupils in the lesson. Where there were increased levels of anxiety in Philosophy and Religion compared to Mathematics, which was a small effect size. This could suggest that as pupils were in a mixed ability environment, they could be anxious as they may be aware that they were surrounded by pupils who were of different abilities. Whereas, Mathematics which was focussed on in the pilot study, where pupils may have felt more confident and less anxious in a group where the levels of ability were similar.

A statistically significant difference was also found between participant's enjoyment levels in the two lessons (shown in table 3.6 above), where there were higher levels of enjoyment in Mathematics lessons compared to Philosophy and Religion, with .18 eta squared statistic which indicated a large effect size.

There was also a significant difference between how participants felt about the way groups had been organised, where it was found that there were greater levels of agreement to how sets were organised in Mathematics compared to Philosophy and Religion, with a .13 eta squared statistic which indicated a large effect size.

A difference was found between the confidence levels experienced by pupils between the curriculum subjects, where greater levels of confidence were experienced in Mathematics compared to Philosophy and Religion lessons, where the eta squared statistic .04 indicated a small effect size.

It was interesting to note the small effect size between the levels of confidence which was experienced by participants in the two lessons, where participants felt higher levels of confidence in Mathematics compared to their Philosophy and Religion lessons. This can also be linked to the fact that a difference was found between how nervous participants felt about being able to meet the demands of the subject, where this was significantly higher in Philosophy and Religion compared to Mathematics. This suggests that it could be hard for pupils in a mixed ability group where they may feel they were not able to keep up with the demands of the lesson, and this could therefore affect their confidence levels in the lesson. Whereas with Mathematics, a curriculum subject organised by ability, where pupils may have felt they were in an environment with pupils of the same ability and therefore could have felt more confident with the pace and topics being covered in the lessons.

There was a significant difference identified between how pupils felt with regard to whether they preferred the challenge of being placed in a set, as opposed to mixed ability teaching. The agreement to this was significantly higher in Philosophy and Religion compared to Mathematics, which was a small effect size.

A small effect size was identified between how stretched and challenged pupils felt, with this being slightly higher in Philosophy and Religion compared to Mathematics. This was positive towards mixed ability teaching, suggesting that teachers were reaching a high number of pupils in the lessons despite a wide range of abilities. However, this was only a small effect size, and up to this point most findings have been positive towards ability grouping.

3.8.2 Focus Group Results and Discussion

The categories for coding were developed during the transcribing process and were decided upon by key themes that emerged. The transcribing process involved reading through the scripts and highlighting any key areas or quotes, these areas were then placed into different categories. During the coding process content analysis was utilised as it allowed for similarities and differences to be identified amongst the categories (Gibson & Brown, 2009). The regularity of comments or topics raised by participants led to highlighting key findings and gaining an understanding of the data that was collected. The categories were:

- Confidence with Ability Grouping
- Anxiety towards Ability Grouping
- Preferences to Mixed Ability Groupings
- Difficulties with Mixed Ability Groupings

Once the categories had been determined, it was possible to identify how many times comments related to the identified categories. There were a total of 57 comments relating to anxiety towards ability grouping, with 53 comments relating towards confidence in ability grouping. In contrast there were 23 comments relating to difficulties with mixed ability groupings, with 10 comments relating to preferences to mixed ability groupings.

An interesting finding to note was comparing comments of participants depending on their ability group; participants from the top Mathematics set made 17 comments relating to confidence with ability grouping, whilst there were 29 comments relating to anxiety towards ability grouping; where middle set participants had 13 comments relating to confidence in ability grouping, compared to only 9 comments in relation to anxieties towards ability

grouping, and 4 comments highlighting difficulties with mixed ability groupings; bottom set pupils had only 8 comments relating to confidence with ability grouping, and 6 comments in relation to anxieties with ability grouping.

Each category is discussed and pertinent comments are highlighted below, under the following titles; confidence with ability grouping, anxiety towards ability grouping, preferences to mixed ability groupings, and difficulties with mixed ability groupings.

3.8.3 Confidence with Ability Grouping

In relation to this area the majority of comments were concerned with being able to work with people of a similar ability, as a pupil in year 7 commented "…if you are with people of the same ability as you … you are not scared about asking the wrong questions or going too slow…" (Clare, focus group 1, line 57-58). Pupils suggested that working with pupils of similar abilities made it possible to work at a pace that was suitable, this was mentioned in both a year 8 and year 9 focus group. Jane (year 8, focus group 8, bottom set maths, line 26-27) said that "…in your sets it is really nice because you are with people who are at the same level as you and then the teacher goes at a pace you like…". On the other hand, Sarah (year 9, focus group 9, top set maths) explained that she "...likes sets as it allows you to work at a pace that allows you to feel comfortable…" (Line 44).

Pupils were able to suggest the positive benefits that they could see with regard to ability grouping, Harriet (year 8, focus group 6, line 52-53, top set maths) said "… you have something to work up to, you know what you are working up to, and is pretty clear how the system works". A pupil in year 9 commented on the benefit of having competition with ability grouping, as this provided motivation, "...I like sets as they are more competitive… I

think the competitiveness gives people motivation, and to keep trying" (Sophie, year 9, focus group 9, line 42, top set maths). It was interesting for a year 7 pupil to suggest how happy she would feel if she were to be placed in a top set, even though this year group do not currently experience ability grouping (Vanessa, year 7, focus group 5).

This finding from focus group 9 links with previous research, which suggested that positive findings towards ability groupings were found with pupils in the top set (Kulik & Kulik, 1982; Venkatakrishnan & Wiliam, 2003; Wiliam & Bartholomew, 2004).

3.8.4 Anxiety towards Ability Grouping

Concerns raised under this category were linked to feelings related to being in a low set, for example feeling upset about being placed in a low set from a pupil in year 7, as exemplified below:

> "…if you ended up in a low set for both Maths and French you would feel really really bad…you had to say set 5 and 5 that would be devastating. I really really hate sets…" (Adele, year 7, focus group 2, line 48-51).

The concerning factor was related to how many comments came from year 7 participants, who up until this point have not experienced any form of ability grouping at this school but yet were still concerned with being placed in a low set, as Jennifer said "...it would be like quite disappointing if you are in the last set… feels like your falling behind…" (year 7, focus group 4, line 24). This highlighted how concerned certain participants were about disappointing their parents:

> "…my parents expect me to be in the top set so that is quite hard and can be quite pressurised. But at the same time I am worried about being in the top set as I don't want the work to move on too fast…" (Kara, year 7, focus group 5, line 100-102).

Concerns were also raised with regard to receiving negative judgement from others if they were placed in a low set, "…like the judgement of oh you are bottom set… I just don't think that's very nice" (Elisa, year 7, focus group 5, line 33-34).

As highlighted above from the year 7 focus group, there were also occasional comments from participants in the bottom set regarding concerns about being judged for being in a low set, but this was countered with their realisation that this was the correct set for them, and allowed them to work at a pace that was most suited to them. Hallam and Ireson (2007) also found that pupils in low ability groups expressed disaffection with being placed in this set, and a desire to move up coincides with these findings. As well as concerns raised from pupils in the bottom sets, anxieties were also highlighted with regard to being in the top set and their anxieties about being moved down, "…I think it would be a bit ... disappointing to be placed in anything other than set 1, and I am pretty terrified about being moved down…" (Harriet, year 8, focus group 6, line 37-39, top set maths). Along with the anxieties of moving down, it was also found that participants experienced pressure to keep up with others and stay in the top set,

> "…at the same time quite pressurised as you don't want to move down, you want to keep up with everyone in your class, so at some points I feel quite pressurised to stay in the top set…" (Madeleine, year 8, Focus Group 6, line 86-88, top set maths).

With the findings here it was interesting to consider that whilst pupils in the top set were confident with Mathematics being organised by ability, they also demonstrated many concerns or anxieties with ability grouping. This was mainly in reference to the pressure of being in this environment and the fear that if they did not perform they would be moved down a set. This was linked with previous research where it has been identified that the

pressure to cope with the fast pace of top set work can be too much (Boaler, 1997a, b, c; Boaler, Wiliam, & Brown, 2000).

This also links to another finding with the year 7 focus group, where they highlighted many concerns about the prospect of being set in their next academic year. They were mainly concerned about what would happen to them if they were to be placed in the bottom set, and how others would view them if they were placed in a low set for both Mathematics and French. It was interesting to see the high rates of anxieties that existed in this age group with the anticipation of setting. Despite this concern it was interesting to see some participants identifying the benefits that ability grouping would offer, both from the perspective of a top set and bottom set, allowing individuals to work at a pace that was best suited to them.

3.8.5 Difficulties with Mixed Ability Grouping

There were 23 comments in total relating to difficulties with mixed ability grouping, in particular participants were concerned about working slowly and feeling pressurised to work more quickly and rush to keep up with others, as shown by this year 7 pupil:

> "sometimes it can feel quite pressurised if others in the class finish before you, or are ahead of you… it makes me feel like oh I've got to rush and then this makes me make more mistakes, and you are worried that someone has gone faster than you and you are behind" (Kara, year 7, focus group 5, line 73-76).

Pupils also had a fear that they were holding up the rest of the class by working too slowly, and this potentially led to participants being too scared to put their hands up to ask questions, "…I'm always scared to put my hand up" (Fay, year 7, focus group 2, line 53-54).

3.8.6 Preference for Mixed Ability Grouping

It was interesting to see how much some participants valued mixed ability groups as it allowed them to help each other, and offered an opportunity to explain something or help someone on a topic which they might be particularly good at,

> "…if someone asks you it can also be really nice to explain to somebody … so when helping someone else it sort of helps yourself at the same time even if you know it quite well" (Adele, year 7, focus group 2, line 38-40).

It was also suggested that mixed ability can spread out the ability, as can be good when pupils can help each other,

> "…it's good as it spreads out the ability more, the strong people help the weak people. And I think that was really good and really helpful…" (Laura, year 9, focus group 9, line 49-50, top set maths).

This was supported by Sebba, Kent, Altendorff, Kent, Hodgkiss, and Boaler (2011) where mixed ability group work allowed a greater challenge for pupils, as the higher ability pupils were able to get better by helping the lower ability pupils.

3.9 Overall Findings

It has been possible to identify some views about positive effects of ability grouping within Mathematics compared to a mixed ability subject, Philosophy and Religion. This was identified through greater confidence levels identified in Mathematics from the questionnaires, and positive thoughts regarding Mathematics from the focus groups. However, this needs to be taken into account with the negative or anxious feelings

highlighted surrounding ability grouping, including the pressures that some participants were able to identify in the focus groups.

The results identified that pupils had mixed feelings with regard to their confidence in the system of ability grouping. The concerns raised were with regard to the movement between the sets, and how the sets are initially determined suggesting that examination results were the main determining factor.

3.10 Conclusions

From the data analysis of the IFS pilot study it was possible to conclude that pupils did have positive thoughts and feelings towards ability grouping, however, it needs to be taken into account that this was only a small proportion of the school and a small sample of curriculum subjects. To explore this area further it would be necessary to look at a wider cross section of the school, and this would therefore allow a deeper insight into ability grouping in this environment and add to the existing body of literature.

The research findings were consistent with previous research regarding ability grouping, suggesting the positive effects of ability grouping (Ireson & Hallam, 2001; Ireson, Hallam & Hurley, 2002). However, this does need to be taken into account with other research that has taken place which suggest negative results found in relation to setting, which was also identified in this research (Araujo, 2007; Boaler, 1997a; 1997b; 1997c; 1996; Boaler, Wiliam & Brown, 2000; Ireson, Hallam & Plewis, 2001), and more inconsistent findings (Gamoran & Berends, 1987; Harlen & Malcolm, 1997; Ireson & Hallam, 1999; Kulik & Kulik, 1982; Tibbenham, Essen, & Fogelman, 1978). This highlighted the need for further research into

this area, potentially including more curriculum subjects across the school, to allow for a greater understanding with different participants and curriculum subjects involved.

The concern of how groupings were organised, and when movement between sets happens was raised. Hallam, Ireson, and Davies (2002) also found that this was a concern across a number of schools, with schools being able to determine their own criteria and methods for ability grouping, with no formal suggestions of what would be the most suitable. It was also suggested that there was considerable variation between schools in the UK, as schools are allowed to determine in which subjects they group by ability (ibid, 2002).

This exploratory pilot study allowed data collection and analysis methods to be tested, and a greater understanding to be gained of the methodologies chosen. It has provided the opportunity to highlight areas that could have been improved with data collection, ensuring appropriate questions for both questionnaires and focus groups to allow for meaningful data to be collected. Further information regarding how the data collection methods and design were changed can be found later in this chapter (3.11.2, and 3.11.3).

3.11 Relevance of IFS and Impact for Full Scale Research

The IFS pilot has provided the opportunity for me to gain insights within my professional context. The pilot study has been very useful and impacts the full scale research, and data collection methods that were utilised for the final thesis. I will discuss each area and how it impacts the final research.

3.11.1 Research Questions

Looking back at the research questions it was possible to consider whether the data collection methods had effectively allowed the questions to be answered. The table below

(Table 3.7) demonstrates how the research questions were answered, and from where the evidence was gained.

It was not possible to identify with certainty whether the levels of motivation were affected by ability grouping. This highlights the need to ensure that data collection methods offer opportunities to measure this specific area, and something that needs to be rectified for the main research. This will be achieved through refining the questions in both the questionnaire and focus groups, to allow this research question to be answered.

Table 3.7 Research Questions

Research Question	Summary of Results	Evidence
1) How do pupils perceive their learning experience in an independent school setting, comparing mixed ability subjects (Philosophy and Religion) and ability grouped subjects (Mathematics)?	It was possible to identify that pupils felt differently when comparing the two environments, in terms of: – Confidence levels – Anxiety towards different subjects – Enjoyment of different subjects	Questionnaire Focus Groups
2) a) Do pupils feel differently depending on how subject groupings are organised?	It was possible to identify that pupils did feel differently depending on how subjects were organised comparing Mathematics to Philosophy and Religion, suggesting the possible preference to ability grouping and greater levels of confidence in this environment compared to a mixed ability environment. However this was alongside comments of anxiety and pressure relating to ability grouping	Questionnaire Focus Group
2) b) Is the motivation of pupils affected by ability grouping?	It was not possible to identify with any certainty whether the levels of motivation were affected by ability grouping	
2) c) Do pupils have confidence in the system of setting, for example movement between sets?	It was not possible to identify that pupils had mixed feelings with regard to their confidence in the system of ability grouping. The concerns raised were with regard to the movement between the sets, and how the sets are initially determined	Questionnaire Focus Group
2) d) Is the progress of pupils hindered by mixed ability teaching?	No clear findings were identified	
2) e) Do pupils feel anxious about not being able to keep up or meet the demands of the lesson?	No clear findings were identified	

3.11.2. Choice of Data Collection Methods

The questionnaire and focus groups allowed meaningful data to be collected in an efficient and effective way. The Focus groups provided the opportunity for greater detail to be gained from the participants regarding more intricate details, whilst the questionnaire allowed for a larger portion of pupils at the school to be reached. It was felt that when working with children the questionnaire with a Likert scale was a suitable method to use, as it was simple and easy to follow.

3.11.3 Design of Data Collection Methods

The design of the questionnaire was effective for data collection and is a method that can be repeated for the final full scale research.

For the pilot study two questionnaires were used, one for the mixed ability subject and one for the ability grouped subject, and whilst this allowed meaningful data to be gathered it needed to be taken into consideration whether statements that were worded differently in the questionnaires could lead to bias. Therefore for the main research only one questionnaire will be administered in different curriculum subjects.

Further refinement to the questionnaire also took place, with some statements being omitted to allow for more information to be gained, and allowing the statements to be clearer for the participants. Having collected data through the pilot study it seemed a valuable task to ensure that I was able to gather new and insightful data as opposed to replicating the pilot study. Therefore new statements were designed in light of the findings; the table below (3.8) shows the statements that would be omitted completely.

Table 3.8 Statements to be omitted for Full Scale Research

Statement	Omissions
6) I enjoy being able to work with my friends in lessons	– These statements did not answer the research questions they were designed to answer
9) I prefer to not have my friends in lessons so that I do not become distracted	– Regardless of whether the class is organised by ability or mixed ability it may not impact whether friends are in the lesson or not – For the full scale research these questions will be omitted
7) I wish that all lessons were taught in mixed ability groupings (e.g. in form groups)	– This statement did not answer the research questions they were designed to answer – For the full scale research this question will be omitted
8) I prefer the challenge of being placed in a set	– These statements were used in the two different questionnaires as a contrast to replicate the two different environments. – For the full scale research these two questions will be omitted
10) I am happy with the set that I have been placed in for this subject	

The focus groups were felt to be effective and allowed for some insightful comments to be gained. It was possible to gain a greater understanding of the thoughts and feelings towards ability grouping and mixed ability teaching.

With regard to focus groups it was possible to identify that they were more like semi-structured interviews, due to the series of questions that were used. Upon reflection, this was felt to be too formal, and therefore a less formal approach with a more fluid and flexible design was created; Krueger and Casey (2002) suggested that this environment would allow pupils to feel able to share their views. For the full scale research the focus groups will have topic areas to be covered, which will try to guide the group discussions, as opposed to having a series of questions to be answered to guide the discussions. This will allow more freedom for the participants, and hopefully allow the conversation to flow

amongst the participants. Therefore it will give participants an opportunity to open up and allow for greater detail to be gained, as opposed to feeling they are only there to answer a long list of questions.

3.11.4 Participants

The number of participants for the focus group will increase to six for the full scale research. Whilst four participants worked well for the IFS, I believe that having six participants will allow for an increase in the amount of group discussion between the participants. Morgan (1998b) indicated that six participants would be considered a relatively small group, and this will be an ideal number for participants aged between twelve and sixteen, as it will allow for an intimate group size whilst preventing any individuals from feeling uncomfortable.

For the IFS one of the participant groups investigated was year 7; however for the full scale research this year group will not be used again, as this year group does not yet utilise any forms of ability grouping and therefore have limited experiences. From the IFS it was possible to identify that this year group have a great deal of anxiety regarding the prospect of setting, however, I do not believe that this will change if this group are involved with the full scale research.

The year groups for the full scale research will be:

- Year 8
- Year 9
- Year 10
- Year 11

I believe it is important to increase the number of year groups and include the examination year groups (Year 10 and 11), as they will have experienced a variety of different methods for organising groups. Even if there is overlap and the same participants feature in both the IFS and the full scale research, the pupils will be at least two years older and will therefore possibly have different views.

3.11.5 Administration of Data Collection Methods

The questionnaire worked well being administered at the beginning of the lesson, as this was least disruptive to the lesson for teachers and hopefully prevented any negative feelings the participant may have about the lesson. The venue for the focus groups was also considered to be effective, and will be used again for the full scale research.

It should be considered whether there was any effect with the researcher being present at both the questionnaire and focus groups, as with the researcher being a teacher the participants may have possibly known the researcher. This could have been positive or negative, it could have allowed the participants to feel at ease, or it could have affected their responses if they were trying to please the researcher and give responses that they thought they should have.

3.11.6 Comparing curriculum subjects

It was evident that significant differences were shown in the IFS between Mathematics and Philosophy and Religion, with regard to confidence and anxiety levels, and concerns regarding how groups were organised. It is now pertinent to identify whether similar findings could be identified with other curriculum subjects, or whether this was unique to Mathematics and Philosophy and Religion. As it is not possible to generalise the results

obtained from the IFS pilot data to the rest of the school, which only compared two curriculum subjects, gaining more data from comparing more curriculum subjects will help to see if the same comparisons can be made. The proposed curriculum subjects to be used for the full scale research are Physics, French, English and Physical Education. Physics and French are both organised by ability, whereas Physical Education and English, are both mixed ability lessons. These curriculum subjects were chosen as they give further comparisons across the school of different subjects which utilise ability grouping and mixed ability groupings. It was felt that using different curriculum subjects would be more beneficial than investigating the same curriculum subjects again.

3.12 Research Questions

From this pilot study and the literature review, outlined in the previous chapter, the following research questions have been developed.

1) How do pupils perceive their learning experience in an independent secondary girls' school, comparing mixed ability lessons and ability grouped lessons?
2) Is the motivation of pupils affected by ability grouping, with regard to an individual's belief of competency within curriculum subjects, and persistence to complete tasks?
3) Do pupils' levels of self-esteem differ depending on how the lesson is organised?
4) Are levels of anxiety affected with regard to the pace of lessons, whether pupils can keep up or meet the demands of the lesson?

The next chapter outlines the research methodology designed to answer the research questions for the Case Study research.

Chapter Four

Research Methodology for Thesis

4.0 Introduction

This chapter describes and justifies the research methodology that was followed, detailing the research focus (4.1), and the research approach is outlined (4.3). The methodology procedures used (4.3) and the data collection methods chosen (4.4) are discussed, including the design of the data collection methods (4.5), the process of data collection (4.6), participant information (4.7), the data analysis methods used (4.8), reliability and validity issues (4.9), and ethical considerations (4.10) are all critically discussed.

4.1 Research Focus

The purpose of the research was to explore the thoughts and experiences of pupils in a girls' independent secondary school with regard to the different ways in which groupings were organised. Specifically this research was designed to determine whether pupils' levels of motivation and engagement in lessons were affected depending on what groupings were being used, either mixed ability or ability grouped lessons.

4.2 Research Approach

Bearing in mind the research questions in the previous chapter (3.12), a suitable approach was required to allow for these questions to be answered. Scott and Usher (2011) suggested that all research, regardless of methods, makes knowledge claims, and therefore epistemological claims are always involved.

Ontology refers to the nature of reality (Wellington 2000), and the enquiries, assumptions and theories about it (Hammersley, 2012), and it is the researcher who has the task to explore this. Hammersley suggested that there is an "...area of fundamental disagreement here concerns whether all phenomena have the same fundamental character or whether there are multiple kinds of being" (p.9). Usher (1996) goes further to suggests that,

> "...in the postmodern world, there is a questioning of whether knowledge is established through systematic empirical observation and experiment or whether a necessary first step requires a shifting of the way the world is seen and the construction of a new world to investigate. In other words, an epistemology must be preceded by an ontology" (p. 26).

It is important to consider at what stage a researcher chooses their method for research, and the important role that previous experiences and existing knowledge may influence decisions that are made. Linked to ontology is epistemology, which is concerned with determining the criteria that form distinctions between actual knowledge, and what is opinion or belief (Scott & Usher, 2011). With epistemology it needs to be considered whether knowledge is possible, and if it is possible then how the knowledge can be gained and what the restrictions are (Hammersley, 2012). This can include ethical knowledge, with regard to how things should be completed, but also factual knowledge, with regard to what exists in the world (ibis, 2012).

The research approach followed was the post-positivist paradigm, which suggests that the world is challengeable, changing and that there are multiple external realities which are regarded as subjective as opposed to objective (Cohen, Manion, & Morrison, 2011; Firestone, 1987). Within this paradigm the values and perspective of the researcher determine what the research will focus on, the direction the research will take, and how the

results will be interpreted (ibid, 2011; Hatch, 2002). Cohen, Manion, and Morrison (2011) suggested that it is likely that there will be several, sometimes contradictory, interpretations of research or events, where an individual's interpretation is only one possible explanation. The researcher, however, will have a particular insight into the research procedures and data, so therefore the interpretations that the researcher has will be more meaningful for that particular piece of research, however potentially value laden. The post-positivist paradigm suggests that there is no sole, or given meaning, but there are many, and it is the job of the researcher to identify the many meanings and identify if there is one more relevant or important meaning to answer the research question (ibid, 2011).

Post-positivism was selected for this present research study as it allowed for an understanding of the researcher being involved in the research, and not remaining completely objective (Jameson, 1991). Usher (1996) suggested that the effects of the researcher trying to remain objective could possibly have a negative impact on the research, as the researcher is required to interpret vital information.

Post-Positivism suggests that evidence is gained from empirical sources, for example direct observations or responses from questionnaires (Hammersley, 2012), and also supported the use of mixed methods research, allowing for both qualitative and quantitative methods to be incorporated into the same research project (Crompton 1998; Skeggs, 1997). Allowing the benefits of combining the potentially large volume of quantitative data with the detail from qualitative research to allow for research questions to be effectively answered (Creswell, 2012). Greene (1994) identified the benefits of linking both theory and experience together, and therefore recommended combining both qualitative and quantitative methods to allow for greater explanation of data collected. Guba and Lincoln

(1992) suggested that Case Study research operates within a naturalistic perspective, and allows the research to not be underpinned by scientific criteria and allows for the researcher to be inter-related with the project or subject. Throughout this research the researcher was present at all times attempting to gain a full understanding of the procedures and experiences of pupils at the school.

It has been suggested that if a researcher attempts to remain completely objective then it can possibly have a negative impact on the research, as the researcher is required to be involved to allow for the data collected to be interpreted in a meaningful way (Usher, 1996). The post-positivist paradigm recognises that the researcher should be involved and part of the world that they are researching (Cohen, Manion, & Morrison, 2011), to allow them to gain a full understanding of the area.

4.3 Methodology

To allow for an in-depth analysis a Case Study was used to focus upon one institution, as it allowed for a close investigation into the real life complexities of the institution that was being researched (Denscombe, 2010; Remenyi, 2012; Stake, 1995; Yin, 1981; 2009); giving the opportunity to capture the actual reality of settings (Scott & Usher, 1999).

4.3.1 Case Study

The close investigation that Case Studies offer allowed for insightful and illuminating data to be gained from the institution being investigated (Wellington, 2000) as "...a case study provides a unique example of real people in real situations, enabling readers to understand ideas more clearly..." (Cohen, Manion, & Morrison, 2011, p. 289).

Case Study research can be defined as a detailed examination of one setting, or single subject, one particular event, or phenomena. It is not defined by the methods that are used to investigate (Bogdan & Biklen, 2006; Hartley, 2004; Merriam, 1998; Stake, 2000; Yin, 2009). When using Case Study research, observations and investigations take place in real contexts, and an in-depth understanding is required to gain a full understanding of the case (Cohen, Manion, & Morrison, 2011).

Many scholars have determined several different types of Case Study, and the main types are discussed below.

Yin (1981; 2009) identified three different types of Case Study in terms of their outcomes; exploratory, descriptive, and explanatory. However, Yin (2003) highlighted that research does not necessarily fit perfectly into one of these types of Case Study, the edges can be blurred, and research can fit into more than one. Stake (2000) identified three types of Case Study; intrinsic case studies are aimed at trying to gain a better understanding of the case being examined; instrumental case studies, aim to investigate a particular case to allow an insight to be gained into an issue or theory; and collective case studies, which are groups of individual studies that seek to gain a fuller picture, for example it could be to investigate a phenomenon, population or general condition. This Case Study fitted into the instrumental category, as it investigated an individual case focusing on the one issue of how groupings were organised.

Bassey (1999) identified types of Case Study, which specifically relate to education, but acknowledged the fact that they were similar to other types of case studies that have been outlined previously. Bassey (2003) identified the theory-seeking and theory-testing case studies, story-telling and picture-drawing case studies, and evaluative case studies. Theory-

seeking and theory-testing case studies are both suggested to be more focussed on the issue or theory as opposed to the case. Bassey (1999) identified that the theory-seeking is similar to Yin's (2003) exploratory Case Study, and the theory-testing Case Study is explanatory. It could be suggested that this described the Case Study that took place for this research, as this Case Study research was focussed upon the issue of how groupings were organised in this institution, as opposed to focussing on the institution itself.

Story-telling and picture-drawing case studies are both linked with analysing accounts of educational events, projects or programmes which aim to focus on different theories. Story-telling is mainly a narrative account of the case, whilst picture-drawing is mainly a descriptive account, bringing together the result of the exploration and analysis of the case. Evaluative case studies aim to explore an educational programme, system or project in order to identify the benefit of it (Bassey, 2003). Evaluative Case Studies best described the analysis that took place in this research, as it explored the grouping practices that were in place in this one institution to establish whether it benefited the pupils.

For the purpose of this Case Study a single-case, and descriptive design was adopted, which was identified by Yin (2009). This type of design was best suited as it looked at one school, but then focused on small sub units, for example different curriculum subjects and pupils, and also allowed for different data collection methods to be used to allow these different sub units to be reached effectively. It was a descriptive Case Study as it attempted to present a complete description of the case within its context. The Case Study was also evaluative, as it explored an educational system that was already in place, as it looked at the system of how lessons were organised at the school, either utilising ability grouping or mixed ability grouping within different curriculum subjects.

4.3.2 Benefits of Case Study

There are many benefits to Case Study research, and these are outlined below.

One main benefit is that Case Study research allowed the researcher to become fully immersed in the case that was being investigated, allowing for a real in-depth understanding to be gained. This was ideal for this research project due to the access that the researcher had to the institution, allowing full access and a thorough understanding of the practices and workings of the institution. With this unique Case Study it was possible to probe in detail at the practices and decision making that took place at the school, and attempt to gain an understanding of how and why classes have been organised with regard to ability grouping or mixed ability teaching.

A unique benefit to Case Study research was that it allowed for change to take place in the institution, as the "...interpretations can be directly interpreted and put to use" (Bassey, 2003, p. 23). Wellington (2000) supported this further suggesting that focusing on a school will provide the opportunity to offer research that can be of value to teaching and learning. This was particularly beneficial to this Case Study, as the researcher was able to directly feedback the results to teaching staff.

Case Studies also allowed for multiple sources of data to be utilised (Denscombe, 2010), as in this case, where a questionnaire and focus groups were used to build up the picture of the views that pupils had towards the practices of ability grouping in the school. It fitted in well with small-scale research studies (Denscombe, 2010), such as this one, by concentrating on the one institution.

Despite criticisms of the lack of generalisability (that will be discussed below), researchers have suggested that regardless of the research only being gained from one institution it still provides valuable insights, Wolcott (1995) went further to suggest that "each case study is unique, but not so unique that we cannot learn from it and apply its lessons more generally" (p. 175).

Scott and Usher (1999) suggested that Case Studies can be complemented by examining other similar cases, for example other schools that are similar in nature. When theories are being formed having multiple cases allows for data to be cumulative, as the more cases there are the more extensive and rich the data can be. Scott and Usher (1999) also suggested that having these multiple cases will allow the findings to be "...more reliable, enabling the researcher to generalise to larger populations...or more cases can then be tested as to its validity and reliability by examining further cases" (p. 88).

4.3.3 Criticisms of Case Study

The main criticism of Case Study methodology is that because it is undertaken in specific contexts, it can therefore be hard to generalise the results to other cases or institutions. However, it was suggested by Yin (2009) that Case Study can use analytical generalisation,

> "...in which a previously developed theory is used as a template with which to compare the empirical results of the case study. If two or more cases are shown to support the same theory, replication may be claimed" (Yin, 2009, p.32).

Cohen, Manion and Morrison (2011) supported this by identifying that multiple case studies can all add to a group of existing data and can strengthen the results by replication, leading

to contributing to greater generalisability and increasing confidence in the robustness of the theory.

Yin (2009) continued further to point out that the generalisations of results, from either single or multiple designs, is made to theory and not to populations. Yin (2009) suggested that it can be possible to attempt to select a "typical case" to allow results to be generalised to other cases that may be similar, however this can be particularly challenging as even a "typical case" can vary from others. Bogdan and Biklen (2006) try to make a claim for generalisability on the basis of the similarity of their Case Study to others reported in literature. However, it can be suggested that the generalisability of results was not a key focus of Case Study research, as the main focus was to gain an in-depth understanding of a particular school (Krueger, 1998), and potentially aim to influence practices that currently take place in a particular institution. Flyvbjerg (2006) suggested that Case Study research allows for in-depth knowledge to be gained, whereas research with large samples offer breadth without the depth. Whilst Case Study research only looks at one case, this case investigated in depth and at great length, offering a thorough understanding (Stake, 1995).

Bassey (2003) proposes a way to consider how generalisations can be made from single Case Studies, by forming what he calls "fuzzy" generalisations. This notion of generalisation is different from the scientific idea of the term, which from the use of controlled experimental conditions and statistical analysis, the researcher can measure the certainty with which they can assert their findings. With "fuzzy generalisations", the user of the research will use their previous experience and their understanding of the research and evaluate the evidence, will enter into discussions with colleagues, and test out its efficacy in the classroom. This type of generalisation does not have the certainty of the scientific

notion of generalisability, but addresses how this research could be useful outside the boundaries of the case.

Denscombe (2010) also highlighted the criticism that case studies produce "soft" data which lacks rigour and relies too heavily on qualitative data, looking at the processes rather than actual products of the research. This Case Study, however, used both qualitative and quantitative methods of data collection, allowing for figures to be collected alongside the thoughts and views of participants.

Case Study research takes place in natural settings and is a unique situation, and therefore it can be difficult to replicate exactly the methods of data collection. LeCompte and Goetz (1982) suggest that no behaviour is ever static and therefore no study can be replicated easily. The results from this Case Study supplemented previous research in this area and informed the practices that took place in this specific institution, and throughout the process a clear audit trail was provided to allow for future replication if needed. Understanding the disadvantages outlined, Case Study was still thought to be appropriate for this research, particularly in light of the advantages and benefits that were outlined above.

4.3.4 The use of Case Study in this Research

After considering the criticisms and benefits outlined above regarding Case Study research, this approach was chosen as it allowed for this one institution to be investigated thoroughly and an in-depth analysis to take place into the processes and workings of this school.

The case that was the focus of this research was the school setting, and in particular how teaching groups were organised for lessons and the impact this may have had on pupils.

The institution was an independent secondary girls' school based in London with pupils aged 11-18 (more information on the institution can be found in the Introduction, 1.2 and the Institutional Focus Study, 3.3). The school was selected for this Case Study research, as it fitted the gap in the literature that needed to be researched, and it was also readily available to the researcher who worked in this particular school.

4.4 Methods of Data Collection

This Case Study adopted both qualitative and quantitative methods, and it has been identified that case studies offer a unique strength to allow multiple methods of data collection to take place at the same time, to allow for the complex nature of the case to be captured (Denscombe, 2010; Yin, 1994).

Combining both qualitative and quantitative methods allowed, not just for the validation of the findings, but also a deeper and wider understanding, allowing the research to be holistic (Olsen, 2004); Wellington (2000) supported this further suggesting that research should be conducted with mixed methods as it allows for quantitative data to give structure and qualitative data to give richness and detail.

Utilising both qualitative and quantitative methods in this research allowed for greater understanding of the case, as the quantitative methods allowed for a large number of the school population to be reached, whilst the qualitative methods allowed for an in-depth understanding of the views and concerns of pupils. Scott (1998) suggests that whilst differences exist between both qualitative and quantitative methods, they do not belong in different paradigms and can therefore be used within the same research project.

4.4.1 Justification of Data Collection Methods

Whilst normally in Case Study research qualitative data is collected (Stake, 1995; 2000), many researchers have now suggested that Case Study methodology can allow for quantitative and qualitative data collection methods to be used together (Gerring, 2007; Robson, 2011; Yin, 2009). For this particular research it was deemed that using both qualitative and quantitative data collection methods would allow a good balance and a complete view of the case. Robson (2011) suggests that combining both qualitative and quantitative methods offers a complete and comprehensive overview of the chosen topic, whilst allowing a wider range of research questions to be answered. Bryman (2006) goes further to suggest that the results can complement each other from the qualitative and quantitative methods, where the results from the quantitative findings can be explained in greater detail with the qualitative findings. Combining qualitative and quantitative methods of data collections can be referred to as mixed methods (Creswell, 2011), where Denzin and Lincoln (2011) suggested that this method allows a sharper and bolder picture to emerge. Creswell (2015) highlighted that only using one method of data collection may be lacking, as all methods have strengths and weaknesses. Therefore using two methods may allow for the strengths of one method to compliment the weakness of another (ibid, 2015). Using both quantitative and qualitative methods would allow for two perspectives to be gained, quantitative gaining information from closed-ended data, and open-ended personal data being collected from qualitative data (ibid, 2015). This research utilised a convergent parallel mixed method design (Creswell, 2014), as the questionnaire and focus groups were analysed separately, and then compared to consider the findings.

The data collection methods selected for the research project were questionnaire and focus groups.

4.4.2 Questionnaire

The questionnaire was selected as the quantitative method of data collection as it provided an opportunity for the research questions to be answered effectively. It provided statistical analysis indicating clear numerical support or dislike towards ability grouping, allowed for a large number of the target population to be reached, provided large amounts of data in a relatively short period of time, and allowed for simple administration (Cohen, Manion, & Morrison, 2011; Marshall & Rossman, 2006; Robson, 2011; Scott & Usher, 1999). The questionnaire allowed for data to be analysed giving numerical figures, reflecting the perceptions of a large proportion of the school population.

Questionnaires can be very time-consuming to create and develop, with the need to pilot and refine the questionnaire (Cohen, Manion, & Morrison, 2011), along with the potentially limited flexibility of the answers that participants can give when rating their thoughts against the statements. A major criticism of questionnaires is the fact that participants may not necessarily respond accurately, they may want to complete it quickly or want to respond in a way that will portray them in a good way (Robson, 2011).

However, despite this criticism, questionnaires were chosen as it allowed children to be involved in the research, as the questionnaires were simple and quick to complete. The IFS pilot study also supported the choice of utilising questionnaires, as this method was effective during this process to collect data to answer the research questions. The pilot study gave the opportunity for the statements in the questionnaire to be tested (3.5, 3.8.1,

3.11.2), to ensure they were fully understood by the participant group. This process allowed statements to be tweaked and refined for the main data collection, which supported and reinforced the decision for selecting this data collection method.

It was important to note that questionnaire was not the single method of data collection; the data collection methods were strengthened by a second method, focus groups, to support and complement the findings.

4.4.3 Focus Groups

Focus groups were chosen as they allowed the research questions to be answered in greater detail that complemented the information gained from the questionnaires (Stake, 1995). The IFS pilot study (Chapter 3) outlined the benefits and pit falls of focus groups, in particular this process allowed greater understanding of the processes that should be followed with regard to focus groups. The use of focus groups and how the process of this methodology changed after the pilot study for the main data collection, and this was discussed in Chapter 3 (3.11.3).

Focus groups can be described as collective conversations or group interviews, where they are a magnifying glass on social interactions that take place in everyday life with a greater focal point (Kamberelis & Dimitriadis, 2005).

Focus groups were selected over individual interviews as they allowed a comfortable environment to be created for pupils, as an individual interview could have been intimidating and not allowed the pupils to feel able to share their thoughts and feelings (Krueger & Casey, 2000). Focus groups also allowed a greater number of participants to be involved compared to individual interviews, as conducting individual interviews can have

limited sample sizes due to the time constraints it can take to conduct individual interviews and transcribe each individual interview (Krueger, 1988). Kamberelis and Dimitriadis (2005) indicated that focus groups are "...efficient in the sense that they generate large quantities of material from relatively large numbers of people in a relatively short period of time" (p. 903).

Krueger (1988) identified that focus groups have high validity, as participants open up and share insights that may not be revealed in interviews or questionnaires. Robson (2011) suggested that this occurs due to the group dynamics that can be created, allowing participants to feel empowered and explain their thoughts in their own words, whilst being stimulated by the comments from others amongst the group. Focus groups are a popular method for data collection due to the fact that they generate more data than other interviews between researchers and participants (Parker & Tritter, 2006; ibid, 2011).

However, the effectiveness would rely on the participants feeling comfortable to open up and actually having any thoughts, either positive or negative, regarding their views towards ability grouping or mixed ability teaching. There was also no guarantee that the participants were telling the truth about what they think, or whether they say what they think the researcher wants to hear. Another limitation with focus groups was the fact that some participants can dominate the conversation, and therefore you do not always get to hear the views of everyone in the group as some can feel uncomfortable if they are a quieter member and do not feel able to engage and contribute to the group discussion (Cohen, Manion, & Morrison, 2011; Creswell, 2012; Parker & Tritter, 2006).

Thus focus groups rely heavily on the researcher facilitating and managing an effective focus group, ensuring that all participants feel able to contribute without any individuals

dominating the proceedings (Cohen, Manion, & Morrison, 2011; Parker & Tritter, 2006; Robson, 2011). Robson (2011) suggested that this can be achieved by the researcher adopting a balance between being active and passive, to allow the topic of conversation to get started and stimulate the interest of participants without imparting their views on the topic. It was suggested that the researcher needs to take a back seat as the interactions amongst the participants are more important than the relationship between the researcher and participant (Johnson, 1996; ibid, 2006). As discussed later in 4.10.1, it was important to consider the effect that the presence of the researcher, who was also a teacher at the school, could have had on the pupils. This could have been positive and helped the pupils feel at ease, however it could have also affected how honest the participants were with their responses.

Kamberelis and Dimitriadis (2005) note that focus groups can be used to gain a greater understanding about participants' choices, and be used as a forum to get participants to explain why they responded in the way they did. Focus groups facilitated the exploration of collective memories, and allow plenty of knowledge to be unearthed that might seem trivial to an individual, but become relevant when like-minded groups are discussing topics (ibid, 2005; Kruger, 1988).

4.5 Design of Data Collection Methods

The questionnaire and focus groups were designed from the research questions. The questionnaire and focus group prompts can be found at Appendix 10.

4.5.1 Design of Questionnaire

The questionnaire comprised 12 statements, utilising a five point Likert scale (Likert, 1932). A five point Likert scale was decided upon after the pilot work that was completed during the Institutional Focus Study (Chapter 3). It has been argued that the neutral option should be dropped, as then it forces the participants to make a decision (Dowling & Brown, 2010). However, it is suggested that the neutral option should be facilitated as it is a perfectly valid response, and it would hopefully prevent questions being omitted or selecting both agree and disagree as options (ibid, 2010). After the pilot study work, it was decided that for this questionnaire the neutral option remained to allow participants to answer every question, and hopefully preventing any questions being omitted.

This type of questionnaire was selected as it was easy for participants to complete and it was quick to administer (Scott & Usher, 1999; Thomas & Nelson, 2001). This was particularly important when working with children, as a Likert scale keeps the questionnaire simple as opposed to having a number of open-ended questions which participants may leave out. A Likert scale allows for a range of responses to be gained from the participants, as opposed to just a yes or no response.

The questionnaire was different from the pilot study, where questions have been modified and new questions added, the changes that were made and reasons for these alterations can be found in Chapter Three (3.11.3).

4.5.2 Design of Focus Group

The focus groups were designed around the research questions, and were a series of prompts and questions. The prompts were only used in the focus groups if the discussion

came to a natural end, and the researcher would suggest another topic or question for the group to discuss. Not all prompts were used as it depended upon the natural discussion that took place amongst the participants.

The focus group was designed to create a nurturing environment where participants felt comfortable to share and discuss their views without any pressure (Krueger, 1998), allowing for greater depth in understanding of the participants' views (Flyvbjerg, 2011).

It was hoped that the prompts designed for the focus groups would allow further insights or information to be gained, in addition to what was gathered from the questionnaires.

Table 4.1 below indicates the statements from the questionnaire and the questions/prompts from the focus groups that were designed to answer the research questions.

Table 4.1 Statements from Questionnaire and Focus Group designed to answer Research Questions

Research Question	Questionnaire Statement	Question Number	Aspects covered/discussed in Focus Group
1) How do pupils perceive their learning experience in an independent secondary girls' school, comparing mixed ability subjects and ability grouped subjects?			• What are your feelings about ability grouping in lessons? • What are your feelings about mixed ability lessons? • Which do you prefer, mixed ability or lessons organised by ability?
2) Is the motivation of pupils affected by ability grouping, with regard to an individual's belief of competency within subjects, and persistence to complete tasks?	• I feel challenged and stretched in this subject • If a task is difficult I would prefer to leave it as opposed to trying it and getting it wrong • I think I will do well in this subject this year • Even if I find a task difficult I am determined to try and complete it	3 7 10 12	• What are your feelings about ability grouping in lessons? • Challenge – is work hard/too easy • Perseverance towards tasks • Confidence in these lessons
3) Do pupils' levels of self-esteem differ depending on how the subject is organised?	• I feel confident in this subject • I am good at this subject • I struggle with this subject • I enjoy this subject • I think I will do well in this subject this year • I feel confident to ask questions in this subject if I am unsure	1 5 6 8 10 11	• What are your feelings about ability grouping in lessons? • Knowledge of the system • Movement between sets • Challenge – is work hard/too easy • Perseverance towards tasks • Confidence in these lessons • Numbers in the group • What are your feelings about mixed ability lessons? • Pace of work • Confidence levels in these lessons • Challenge – is work hard/too easy • Numbers in the group
4) Are levels of anxiety affected with regard to the pace of lessons, whether pupils can keep up or meet the demands of the lesson?	• I am nervous that I will not be able to complete tasks to a good standard in this subject • I worry that I am not able to keep up with others in this subject • I find that sometimes I finish work quicker than others in this subject • I feel confident to ask questions in this subject if I am unsure	2 4 9 11	• What are your feelings about ability grouping in lessons? • Knowledge of the system • Movement between sets • Challenge – is work hard/too easy • Confidence in these lessons • Any concerns or anxiety about lessons • What are your feelings about mixed ability lessons? • Pace of work • Confidence levels in these lessons • Challenge – is work hard/too easy • Any concerns or anxiety about lessons

4.6 Process of Data Collection

4.6.1 Questionnaire

Throughout the whole research process the questionnaire respondents remained anonymous, and were only identified by a number.

The questionnaire was always administered at the start of a lesson, as this was hopefully least disruptive to lessons and prevented any immediate effects of the lesson, for example a mark or feedback from a piece of homework, in the anticipation that the participants would give open and honest responses (Marshall & Rossman, 2006). The researcher was always present when the questionnaires were being administered to be able to answer any questions if required.

The Questionnaire was administered in four different curriculum subjects, Physics, Modern Foreign Languages, English, and Physical Education. Physics was organised by ability for years 10 and 11, and was mixed ability for years 8 and 9. Modern Foreign Languages was organised by ability for years 9, 10 and 11, and was mixed ability for year 8. Physical Education and English lessons were mixed in ability for all year groups.

The subjects were selected from reading the literature which identified Science as being one of the subjects most commonly organised by ability after Mathematics (Hallam & Parsons, 2012). Mathematics was not chosen as this curriculum subject was investigated in the pilot study work, therefore it was thought to be beneficial to focus upon a different curriculum subject. This would have given a greater idea of what pupils experiences were across different curriculum subjects, as opposed to focusing on the same area. Physical Education was identified as a subject where ability grouping was infrequently used, and therefore this

was deemed suitable to focus upon to investigate the experience of pupils in a mixed ability environment (Wiliam & Bartholomew, 2004).

Further information regarding the curriculum subjects that were selected can be found at Appendix 11.

4.6.2 Focus Group

Focus groups took place in a meeting room away from any lessons, as this was deemed to be a neutral environment that would allow the participants to feel relaxed and be able to share their true thoughts and feelings (Krueger & Casey, 2000).

The focus groups were audio recorded and field notes were taken; the notes were taken to allow a recording of what happened during the interview that could not be picked up on the audio recording, for example body language. This allowed for the meaning and context of the focus group to be captured more thoroughly (Bogdan & Biklen, 2003), especially with focus groups where there are different opinions trying to be captured at one time, therefore the field notes were also used as an aid to determine which participant was talking at which point on the recording.

The researcher was always present for all focus groups, and began the proceedings with a short introduction regarding the purpose of the research and what the focus groups would involve.

4.7 Participants

The year groups targeted for the research, for both the questionnaire and focus groups were: Year 8 (aged 12-13); Year 9 (aged 13-14); Year 10 (aged 14-15) and Year 11 (aged 15-16).

4.7.1 Participants for the Questionnaire

From the four year groups there were a possible 443 pupils that could take part, however only 260 pupils across the four year groups returned consent forms allowing them to participate, giving 59% from the four year groups. This included 74 Year 8 pupils (28.5%), 78 year 9 pupils (30%), 57 year 10 pupils (57%), and 51 year 11 pupils (51%).

The table below demonstrates how the curriculum subjects were organised for the pupils as they progressed through the school (Table 4.2).

Table 4.2 Organisation of Curriculum Subjects

	English	**Physical Education**	**Modern Foreign Languages**	**Physics**
Year 8	Mixed ability	Mixed ability	Mixed ability	Mixed ability
Year 9	Mixed ability	Mixed ability	Ability Grouped	Mixed ability
Year 10	Mixed ability	Mixed ability	Ability Grouped	Ability Grouped
Year 11	Mixed ability	Mixed ability	Ability Grouped	Ability Grouped

From the 260 participants there was a mix of the different ability groups that were represented from Physics and Modern Foreign Languages; however the only language to use ability grouping in languages was French. The table below demonstrates the representation of the different ability groups in both Physics and Modern Foreign Languages (Table 4.3).

Table 4.3 Representation of different ability groups from Physics and Modern Foreign Languages

Groupings		Number of Participants	Percentage
Physics			
Year 8 and 9	Mixed Ability	152	58.5%
Year 10 and 11	Set 1	34	13.1%
	Set 2	22	8.5%
	Set 3	17	6.5%
	Set 4	18	6.9%
	Set 5	9	3.5%
	Set 6	8	3.1%
Modern Foreign Languages			
Year 8, 10, and 11	Mixed Ability	144	55.4%
Year 9, 10, and 11	Set 1	62	23.8%
	Set 2	21	8.1%
	Set 3	17	6.5%
	Set 4	8	3.1%
	Set 5	8	3.1%

4.7.2 Participants for Focus Groups

In total there were four focus groups, each of which included six participants, giving a representation from all mixed ability groups, and top, middle and bottom sets. Krueger and Casey (2000) suggest that between three and four focus groups is a typical number to complete, and at the end of this point to either see if saturation point has been reached or if further focus groups are required.

The participants were selected to ensure there was a mix of participants from all ability groups, to allow for an exposure of different experiences from pupils.

The researcher was able to select participants, with help from teaching staff at the school, who would hopefully not feel overwhelmed or daunted by being involved in the focus group. Parker and Tritter (2006) suggest that selecting the appropriate participants is vital to allow for quality interactions in the focus group to take place, and to allow participants to feel comfortable to share their thoughts and experiences. Participants were selected from each year group to give a cross section from all sets in Physics and Modern Foreign Languages.

It was decided from the pilot study to have six participants in the focus groups, with six participants from each of the four year groups. Whilst the pilot study worked well with four participants it was felt that having six participants would increase the level of conversation, allowing for an increased volume of data to be collected. According to Morgan (1998b) and Creswell (2012) for most purposes four to six participants would be considered a relatively small group. It was suggested that a small group will allow for all voices to be heard and be involved in the discussions (Krueger & Casey, 2000), whilst larger groups may be difficult for all participants to speak as there might not be sufficient gaps in the discussion, and they can be hard to control (Krueger, 1988). Smaller groups of between four and six participants are suggested to be more ideal as they are more comfortable for the participants and allow them to feel at ease (Krueger & Casey, 2000).

This small increase in size of the focus group would also allow the participants to feel more comfortable and relaxed, with the intention that this would allow them to feel less pressure to contribute and create discussion with larger numbers present.

4.8 Analysis of Data

4.8.1 Questionnaire

All questionnaire data were inputted into the SPSS to allow statistical analysis of the data. All responses were checked by the researcher when the data was entered into SPPS.

Once data were entered into SPSS, the data were checked for errors and outliers (Pallant, 2010). Errors were checked by ensuring that each of the variables were within the range (1-5), and that there were no missing cases. If an error was found and an incorrect variable had been entered, or if there was a variable missing this was checked with the questionnaire and changed to represent the correct value.

Descriptive statistics were calculated as they allow for characteristics of the participant sample to be determined (Pallant, 2010), which included the mean, standard deviation, range of scores, skewness and kurtosis. Skewness and kurtosis were calculated at this point as these variables were needed for further statistical analysis. The skewness provides an indication of the symmetry of the distribution, whilst kurtosis provides information about the distribution and where the data may peak sharply (ibid, 2010).

A paired samples t-test was selected as it allowed for comparisons to be made between the responses given by participants in the different curriculum subjects. A paired samples t-test was appropriate as it compared the mean score for the same group in the different curriculum subjects, and for this research it compared the scores of the participants' responses across the different curriculum subjects (Pallant, 2010).

When analysing the data, the different curriculum subjects were compared, to allow for comparisons to take place between the ability grouped and mixed ability grouped lessons.

The initial analysis looked at the whole group of participants, and further analysis looked at specific year groups, comparing year 8 and year 9, and then comparing year 10 and year 11. This was completed due to the different experiences the pupils would have been exposed to, with year 10 and 11 having experienced ability groups or mixed ability grouped lessons for longer in their school career. These year groups were also undertaking their GCSEs, and so therefore may potentially have viewed their lessons in a different way to younger pupils. There was also the potential that teachers would have taught differently to different age groups, with perhaps more structured lessons being delivered to younger age groups in comparison to the GCSE age groups. Therefore these differences between the age groups suggested that different data analysis between the year groups would be beneficial.

When a significant difference was identified in the analysis it was important to identify which score was higher to allow for an understanding of what the difference signified, in terms of whether the response was positive or negative towards ability grouping or mixed ability grouping; and this was achieved by noting the mean scores. From the mean scores, the effect size was then calculated to allow for the size of the difference to be identified, and this was done by calculating the effect size statistic. There are a number of different effect size statistics, however the most common is eta squared (Cohen, 1988). Eta squared represents the proportion of variance of the dependent variable that is explained by the independent variable, and allows meaning to be given for a difference that is found (Coe, 2012). For this study the dependent variables were the curriculum subjects and the independent variable was how the lesson was organised, either by ability or mixed ability. The following guidelines are given to interpret the strength of the eta squared values; .01 = small effect size, .06 = moderate effect size, and .14 = large effect size (ibid, 1988).

An example of the outputs created from the statistical analysis can be found at Appendix 12.

4.8.2 Focus Groups

The focus group recordings were transcribed as soon as possible, and an example of the transcripts can be found at Appendix 13. The recordings were listened to fully before the transcribing process began. From listening fully to the recordings it was possible to create an abridged transcript, leaving out all um's, ah's or any repeated words, only including relevant and useful sections of the discussion (Krueger & Casey, 2000; Woods, 2006). However, a main criticism of this approach was determining what was relevant or not to be included in the transcripts. To ensure that this was not a problem, if there was any doubt regarding what was relevant or not then this was included in the transcript, the only elements that were omitted were repeated words or any superfluous words.

After this process the transcripts were read and any key areas or themes were highlighted, to allow for categories to be developed (Glaser & Strauss, 1967; Mason, 2001), and this allowed a coding process to be utilised. As shown in Appendix 13, with the transcripts, a table demonstrates the categories that were developed, giving examples of what participants said from the transcripts.

Coding was used as it was suggested that it enables a definition and meanings to be gained from the data that is being analysed (Charmaz, 2001; Drever, 2003; Gibbs, 2007; Kvale, 2007), and allows for comparisons to be made and for questions to be asked of the data (Strauss & Corbin, 1990). From the coding process it was possible to raise the codes into categories. Open coding was utilised, where analysis took place by looking at individual sentences and paragraphs, to identify how participants felt about issues relating to ability

setting and mixed ability teaching across different subjects. Open coding was selected as it allows the text to be examined by making comparisons, and then once coded it was possible to compare how it varied with other similarly coded transcripts (Gibbs, 2007).

During the coding process content analysis was utilised as it allowed for similarities and differences to be identified amongst the categories. Where possible the frequency of phrases, categories, and comments were calculated, giving a numerical approach to the words, which allowed for the identification of important or key themes (Gibson & Brown, 2009). The regularity of comments or topics raised by participants led to highlighting key findings and gaining an understanding of the data that was collected.

4.9 Reliability, Validity and Trustworthiness

At the forefront of every researcher's mind should be the trustworthiness of their research, which can be influenced by the epistemological and ontological position of the researcher. Traditionally in positivist research this was achieved through ensuring that high levels of validity and reliability were reached and rigorously adhered to (Cohen, Manion, & Morrison, 1994), however the more natural the research setting the more challenging this was to achieve as factors can be harder to control in natural settings as opposed to settings that are set up for research.

Denscombe (2010) suggests that qualitative researchers have a greater disadvantage as research is undertaken in the field as opposed to a laboratory, and also the research methods employed can make it more difficult to prove the reliability and validity of the research, where the focus is on discovery as opposed to the proof of a theory. This was always known throughout this research and was not considered as a concern or

disadvantage, as the main aim was to focus upon one school, and this could only be achieved by becoming completely immersed in the field.

This complete immersion within the school could have aided the trustworthiness of the research, as Krefting (1991) suggests that prolonged engagement and immersion can allow the researcher to being accustomed to the participants and ensure they are gaining the true perspective of what was being said. This was potentially not as necessary for this Case Study research due to the researcher being a teacher at the school, who already had a good grasp of the ethos of the school and was known to the participants (this is discussed in greater detail in 4.10.1).

4.9.1 Validity

Validity refers to the extent that the research accurately portrayed the area it was focusing on. There are different types of validity which focus upon different areas; external validity and construct validity. External validity refers to the context that the research was set in, and Yin (2009) and Stake (1995) suggest that research in a single Case Study should be theory based due to the issues of generalisation, as discussed in 4.3.2. This research context was the Case Study focussing upon the one school, exploring the views and experiences of pupils towards ability grouping.

Construct validity refers to selecting the appropriate research methods to measure the area of case under investigation. In research it has been suggested by Yin (2009) that it can be necessary to have multiple sources of evidence to ensure that validity was achieved. In this research two sources of data were collected, through the questionnaire and focus groups; there were also four focus groups conducted involving 24 participants which therefore

ensured that any themes which emerged or conclusions drawn were based on many view points as opposed to one single view.

Yin (2009) suggests that a chain of evidence needs to be made clear to the reader, from the forming of the research questions to the conclusions drawn from the results. This research offers the opportunity for the data to be tracked throughout, giving a clear chain of evidence. The focus groups were all transcribed and kept, along with all of the questionnaires, and this allowed for any meanings or cross checking to take place during the data analysis.

4.9.2 Reliability

Reliability refers to whether the research can be replicated. This was most challenging for Case Study research, where different institutions vary greatly. However, Stake (1995) suggests that if the results or findings from other case studies can be supported then this allows for a stronger stand-point, despite some researchers still feeling that Case Study research is not useful (Denscombe, 2010).

For reliability to be evident in a Case Study, Silverman (2006) suggests that the research and procedures need to be transparent. This includes the methodology procedures, the methods of data collections and data analysis. All of the areas mentioned above are addressed throughout this chapter. With regard to the field procedures, the questionnaires were conducted in similar ways to ensure consistency in the participants' experience, the focus groups were also conducted with consistency, with regard to the tape recording, same setting, and same interviewer, whilst allowing for flexibility with the direction of the focus group content.

Yin (2009) also believes in the use of a Case Study database, which involves the data and how it can be stored and used, and a report that was produced by the researcher. For this research all of the data collected has been kept and stored safely, including all consent forms, questionnaires, focus group tapes, transcripts and field notes.

4.9.3 Trustworthiness

An area of trustworthiness in a qualitative research is focusing upon the trustworthiness of the human instrument, where Miles and Huberman (1994) identify four elements related to this. First, the knowledge that the researcher was able to gain regarding the setting, and the ability of the research to analyse and understand a large amount of data. Thirdly, the ability of the researcher to demonstrate a variety of approaches to the research questions and setting; and finally, demonstrating good investigative skills, which could have been enhanced through reading and previous experiences of research methods (Krefting, 1991).

4.10 Ethical Considerations

"Qualitative researchers are guests in the private spaces of the world. Their manners should be good and their code of ethics strict" (Stake, 2000, p. 447). This was important to follow for all research, but seems even more vital when researching within a school, creating an environment, which was comfortable and safe for the participants was fundamental, so that they do not feel threatened at any point.

4.10.1 Insider Researcher

Scott and Usher (1999) suggest that researchers need to control their own values or preconceptions about the research, and remain neutral and objective throughout so that hopefully this does not impact on the responses that the participants may give. Krefting

(1991) suggested that qualitative researchers compared to quantitative researchers attempt to increase the time spent with participants, whereas quantitative researchers consider trying to distance themselves from participants. It was suggested that objectivity can be increased by having distance between the researcher and participants, which therefore can minimise bias through thorough procedures and random participant selection (ibid, 1991).

Remaining neutral throughout was very challenging as the researcher was also a teacher at the school, and was well known to the pupils. Punch (2009) identifies that a researcher with insider knowledge of the school, including its social, cultural and political aspects, can allow for the understanding of the data to be enriched and deepened, which may not occur with a researcher who was not familiar with the school. It was important, however, to ensure that prejudice was eliminated as much as possible when researching in a familiar environment where the researcher is well known. Hammersley (1993) identified many advantages to teachers embarking on research in their own schools and classrooms, as they are best suited to investigating in this situation compared to strangers coming in and trying to fit into this environment. This bias needs to be considered more carefully when research was taking place in the researchers own school or classroom, as it was suggested that when a researcher was aware of these aspects and conscious to ensure that bias was not present they are more likely to devise suggestions to minimise the effects (ibid, 2009).

There are many benefits of being a teacher at the institution being investigated, however this creates a concern with the researcher being well known with the participants and whether they will answer honestly, and avoid trying to give the answers they think the researcher wants. This was countered by the researcher explaining to the participants the purpose of the research, and reassuring the participants about confidentiality and their right

to withdraw at any time. Robson (2011) and Denscombe (2010) suggest that all researchers should operate with integrity and high standards of professionalism and honesty, and this should lead to researchers not being swayed by their own thoughts or feelings towards the topic, and report the findings as they are found. Punch (2009) goes further to highlight the concerns with regard to the researcher having an invested interest in their research as it was taking place in their classroom or school, however this can be the case in every piece of research as one might argue every researcher will have a vested interested in their own research and approach it from one point of view or another.

An area to consider was the relationship between the pupils involved in this research and the teacher as the researcher, as there was potentially an in-balance of power between the two. As it could have been suggested that the teacher or researcher has power over the pupils, and therefore this needs to be considered when looking at the data that was obtained. However, it could be suggested that in a school environment, even a visiting researcher could have be seen as a powerful figure in the eyes of the pupils.

Gaining access into the institution and lessons was an integral part of the research process, which can be very challenging (Denscombe, 2010). This research was aided by the researcher being an insider and therefore having access to this particular institution. Having this opening into the school created an easier opportunity for the results and findings to be shared, and this willingness to share results and the researcher being known within the school enhanced the trust (Bryman 2008). Isaksen and Roper (2009) also highlighted the importance of the time of year in which research takes place in schools, as there are particular times when schools are busier and pupils will not be available due to exams for

example, and once again being an insider allowed the researcher to know when the optimum time to research would be.

4.10.2 Informed Consent

Flinders (1992) asserts that researchers are morally bound to conduct their research in a way that brings about no harm or potential risk. Therefore in this study it was deemed important to ensure that participants were fully aware of the nature of the research and what their involvement would entail, resulting in the participants not suffering at all as a consequence of participating in the research (Denscombe, 2010).

As can be seen from the Institutional Focus Study (Chapter 3, 3.7) approval was gained from the Brunel University Research Ethics Committee. Throughout the research the British Educational Research Association (BERA) guidelines (BERA, 2011) were followed closely.

One of the most important aspects was ensuring confidentiality, to protect and safeguard the participants' identities and the institution where the research was taking place (Denscombe, 2010; Bogdan & Biklen, 2006). It was made clear to the participants that all names would be changed, and pseudonyms would be used as soon as the transcribing process began. Participants were informed that only the researcher and the researcher's supervisors would have access to the research data, and that the data would be retained for two to three years depending on how long the research took to be completed. It was important that information was given to participants prior to signing the consent form so that they were completely aware of what was expected of them (Creswell, 2012; Oliver, 2010). This was included in the information sheet given to participants prior to the

informed consent; both the informed consent and information sheet can be found at Appendix 14.

Both verbal and written consent was gained from the Headmistress at the school, and for the final research individual departments were approached to gain access to lessons. Further consent was gained from the parents or guardians of pupils to allow them to participate in the research, stating that all participants would be completing a questionnaire and then possibly taking part in a focus group (the letter which was sent to parents/guardians can be found at Appendix 15). It was important to gain consent from both parents/guardians and the participants, even though they are children it was still important they were given the right to be fully informed regarding the research and given their own consent (Robson, 2011). Christians (2005) states that informed consent was an important part of the process, where participants should always agree to participate with full and open information regarding the research, ensuring that no deception takes place. Denscombe (2010) suggests that this involves ensuring the participants' interests were protected, as participants should not experience any ill effects after taking part in the research, either short term or long term. As part of the Informed Consent it was important that participants were made aware they were free to withdraw from the research at any point throughout the process, making it clear that there were no penalties for not taking part or withdrawing (ibid, 2011).

4.10.3 Ethical considerations when working with children

As mentioned previously it was important to consider the needs of children when conducting research, Punch (2002) identifies significant differences between children and adults, such as competence, vulnerability and power. Competence refers to verbal

competency, as children have a decreased ability to understand and express ideas compared to adults, and power relates to age, size and status (ibid, 2002). Therefore Punch advocates that methods need to be designed accordingly so that they are appropriate for their audience. This research overcame this by conducting a pilot study with children of the same age, to ensure that the processes were easily understood, and could be completed or answered with ease. Despite this identification of the differences between children and adults, Hill (2005) suggests that children should be considered as human beings in their own right, with their own views and beliefs. However, it was identified that research was usually conducted by adults, and potentially in a position of authority over children, therefore pupils may find it hard to say things they think the adult or researcher may not want to hear (ibid, 2009). The methods that were selected for this research were designed to counteract this, for example selecting to use focus groups as opposed to interviews. Interviews are much more formal, and could potentially have been more intimidating for the participants, whereas focus groups were selected to allow the participants to feel at ease and hopefully have felt able to contribute their thoughts and feelings. Plus, the researcher had an awareness of working with children, and the familiarity of the researcher to the pupils should all have led to counteracting the ethical issues raised here.

4.11 Summary

This chapter outlined the research methodology that was followed, incorporating the data collection methods, participant information, and data analysis in relation to the research questions, also outlining the thorough ethical considerations that were followed.

The next chapter outlines the results obtained from the questionnaire and focus groups, and discusses the results in relation to the research questions.

Chapter Five

Analysis of Results

5.0 Introduction

This chapter presents the results from the analysis of data. Both the findings from the questionnaire and focus groups are outlined separately, with a summary given at the end of the chapter. When analysing the results a table was created to give an overview of the results obtained from both the questionnaire and focus groups, and this can be found at Appendix 16.

5.1 Analysis of Questionnaire Data

Details of the data analysis that was undertaken for the questionnaire can be found in Chapter Four (4.8.1).

The methodology allowed for pupils experiences to be researched across a number of curriculum subjects. The results revealed that statistical differences were found between the different curriculum subjects, offering comparisons in the environments that the pupils were taught in; ability grouped or mixed ability groups. The areas where the statistical differences were identified with the whole student population are outlined below, with key findings outlined in tables. Later in the Chapter results are given from different year groups, first year 8 and 9 (5.1.2), followed by year 10 and 11 (5.1.3).

5.1.1 Statistical Differences identified when comparing pupils' responses in ability and mixed ability group lessons

The first significant finding discussed here (shown in Table 5.1 below), was the greater levels of challenge that was experienced by pupils in the mixed ability grouped lesson (PE) compared to the lesson organised by ability (Physics), which gave a moderate effect size of 0.07. The challenge refers to how the pupils felt during lessons with regard to whether they found work too hard or too easy. Therefore greater levels of challenge were experienced in the mixed ability group. However, in contrast to this there was a difference identified where greater enjoyment in the subject was experienced in the lesson organised by ability (Physics: *M* = 2.59, *SD* = .94), although this was only a small effect size (.02). When considering this finding, it could be suggested that even though pupils experienced greater levels of challenge, this could have been too much, which resulted in them enjoying the mixed ability lesson less.

Table 5.1 Statistical Differences between Physics and Physical Education

Statement from Questionnaire	Mean	Standard Deviation	Eta Squared Value
8) I enjoy this subject (Physics)	2.19	.98	.07
8) I enjoy this subject (PE)	1.83	.96	

Support of ability grouping was identified with a moderate effect size (0.05) which was found between pupils who rated finishing their work quicker than others in the mixed ability grouped lesson (English) than in an ability grouped lesson (MFL), outlined in Table 5.2 below. In contrast to this, albeit a small effect size (.02), it was found that pupils felt more

confident in the mixed ability grouped lesson (English: *M* = 2.11, *SD* = .99) to ask questions compared to the lesson organised by ability (MFL: *M* = 1.93, *SD* = 1.05).

Table 5.2 Statistical Differences between English and MFL

Statement from Questionnaire	Mean	Standard Deviation	Eta Squared Value
9) I find that sometimes I finish work quicker than others in this subject (MFL)	3.04	1.05	0.05
9) I find that sometimes I finish work quicker than others in this subject (English)	3.31	1.01	

The comparison between Physics and English offered the greatest amount of statistical differences when comparing the two different environments and this can be found in table 5.3 below. Further support was identified for mixed ability grouping, where a large effect size (.11) was found between pupils experiencing greater levels of anxiety about not being able to complete tasks to a good standard in the ability grouped lesson (Physics), compared to the mixed ability grouped lesson (English).

Table 5.3 Statistical Differences between Physics and English

Statement from Questionnaire	Mean	Standard Deviation	Eta Squared Value
2) I am nervous that I will not be able to complete tasks to a good standard in this subject (Physics)	3.65	.97	0.11
2) I am nervous that I will not be able to complete tasks to a good standard in this subject (English)	3.21	1.11	

A small effect size (0.04) was also identified where pupils experienced greater feelings of struggling in the ability grouped lesson (Physics; *M* = 3.87, *SD* = .90) compared to the mixed ability group (English; *M* = 3.58, *SD* = 1.06), offering further support for the mixed ability environment. Also, a moderate effect size (.05) was found between the successes pupils thought they would have in the two curriculum subjects, this being higher in the mixed

ability group lesson (English; *M* = 2.67, *SD* = .90) compared to the lesson organised by ability (Physics; *M* = 2.43, *SD* = .71).

As can be seen from table 5.4 below, a large effect size (.14) was identified regarding the enjoyment pupils experienced between Modern Foreign Languages and PE, with greater enjoyment found in the ability grouped lesson (MFL) compared to mixed ability (PE).

Table 5.4 Statistical Differences between MFL and PE

Statement from Questionnaire	Mean	Standard Deviation	Eta Squared Value
8) I enjoy this subject (MFL)	2.33	1.02	.14
8) I enjoy this subject (PE)	1.83	.96	

A moderate effect size was also identified between the anxieties pupils' felt with regard to being able to complete tasks to a pleasing standard (0.07), where anxieties were higher in the mixed ability group lesson (PE; *M* = 3.67, *SD* = 1.02) compared to the lesson organised by ability (MFL; *M* = 3.31, *SD* = 1.06).

Support for mixed ability groups were found, where there were greater feelings of pupils' being challenged and stretched (0.08) in the mixed ability group (PE; *M* = 2.75, *SD* = 1.02) compared to the lesson organised by ability (MFL; *M* = 2.38; *SD* = .99).

As discussed previously in this chapter, further statistical comparisons were then made between different year groups, first year 8 and year 9 (5.1.2), followed by comparisons between year 10 and year 11 (5.1.3). These comparisons were made due to the differences between how the groups were organised for different curriculum subjects within the different year groups, however the comparisons were made within the key stages. The

differences between the key stages include the maturity of the pupils, and the fact that pupils in year 10 and 11 have selected their curriculum subjects, and both of these factors could have led to teachers having different teaching methods which could lead to affecting the experiences and enjoyment of the pupils in different lessons.

5.1.2 Questionnaire comparisons between Year 8 and Year 9

A small effect size (.05) was found which was related to pupils who experienced finishing their work quicker than others, and this was higher in the mixed ability grouped lesson (English: *M* = 3.28, *SD* = 1.00) compared to the lesson organised by ability (MFL: *M* = 3.01, *SD* = .97).

One comparison to highlight occurred between two mixed ability grouped lessons, so it could be argued that this comparison did not add any value if the curriculum subjects were organised in the same way. However, it highlighted the fact that differences can still be identified between curriculum subjects suggesting that some differences were due to individual pupils liking or suitability to different curriculum subjects. Even though small effect sizes were identified it was possible to suggest that pupils did experience differences even if the groupings for the curriculum subjects were organised in the same way.

The analysis between year 8 and 9, also showed support for ability grouping, where a moderate effect size (.05), seen in the table below (5.5), was found with levels of anxieties about completing tasks were lower in the ability grouped lesson (MFL), compared to the mixed ability lesson (PE). Further support for ability grouping was found with the large effect size (0.23) in relation to enjoyment of the subject, where greater enjoyment was experienced in the lesson organised by ability (MFL).

Table 5.5 Statistical Differences between MFL and PE between year 8 and year 9

Statement from Questionnaire	Mean	Standard Deviation	Eta Squared Value
2) I am nervous that I will not be able to complete tasks to a good standard in this subject (MFL)	3.35	1.02	0.05
2) I am nervous that I will not be able to complete tasks to a good standard in this subject (PE)	3.63	.99	
8) I enjoy this subject (MFL)	2.41	1.03	0.23
8) I enjoy this subject (PE)	1.78	.96	

Another positive indicator towards ability grouping was linked to levels of motivation, which appeared to be lower in the mixed ability lesson. A small effect size (0.04) was found between the subjects, indicating that pupils were more likely to leave a task as opposed to trying it and getting it wrong in the mixed ability lesson (PE: *M* = 3.97, *SD* = .96). This suggested that pupils did not want to be seen to have failed at a task in a mixed ability environment.

5.1.3 Questionnaire comparisons between Year 10 and Year 11

Comparisons were also made between year 10 and year 11, and significant statistical differences are outlined below.

Support for mixed ability grouping was shown with a large effect size (.13), where pupils felt more challenged and stretched in the mixed ability grouped lesson (PE; *M* = 2.94, *SD* = 1.13), compared to the lesson organised by ability (Physics; *M* = 2.39, *SD* = .92). As discussed in 5.1.1, this challenge referred to whether pupils felt that work was pitched at the appropriate level, as opposed to being too hard or too easy. It was interesting to consider that pupils potentially found more challenge in the mixed ability lessons as work could have

been too hard or too easy, whereas in the ability group lesson the challenge was pitched at the appropriate level.

Highlighted in table 5.6 a large effect size was also identified between the confidence that pupils felt about asking questions in lessons (0.10), where this was higher in the mixed ability group (English). Closely linked to this was the confidence that pupils felt with regard to how well they would do in the subject (0.08), this once again being higher in the mixed ability lesson (English) again. It was also possible to identify that pupils' felt more challenged and stretched in the mixed ability grouped lesson as well (English).

Table 5.6 Statistical Differences between MFL and English between year 10 and year 11

Statement from Questionnaire	Mean	Standard Deviation	Eta Squared Value
10) I think I will do well in this subject this year (MFL)	2.44	.89	0.08
10) I think I will do well in this subject this year (English)	2.76	.93	
11) I feel confident to ask questions in this subject if I am unsure (MFL)	1.86	1.00	0.10
11) I feel confident to ask questions in this subject if I am unsure (English)	2.25	1.06	

Another large effect size was recognised between Physics and English (outlined in table 5.7 below); in relation to anxieties about not completing tasks to a good standard (0.20), with anxieties being higher in the ability grouped lesson (Physics). Closely linked to this is the confidence that pupils' felt with regard to how well they will do in the subject (0.17), with this confidence being higher in the mixed ability group (English). Equally the confidence that pupils felt in general in relation to the subject (0.10), being higher in the mixed ability lesson (English) compared to the ability grouped lesson (Physics).

Table 5.7 Statistical Differences between Physics and English between year 10 and year 11

Statement from Questionnaire	Mean	Standard Deviation	Eta Squared Value
1) I feel confident in this subject (Physics)	2.10	.84	0.10
1) I feel confident in this subject (English)	2.56	1.01	
2) I am nervous that I will not be able to complete tasks to a good standard in this subject (Physics)	3.66	1.05	0.20
2) I am nervous that I will not be able to complete tasks to a good standard in this subject (English)	2.95	1.06	

However, it was important to note here again, as with previous findings in the overall analysis (5.1.1), that pupils experienced greater occurrences of finishing work before others (0.11) in the mixed ability group (English: *M* = 3.36, *SD* = 1.04).

As can be seen from Table 5.8 below, the largest effect size was between pupils feeling stretched in lessons (0.26), and according to this statistic pupils felt more stretched in their mixed ability group (PE) compared to the ability grouped lesson (MFL). However, in contrast to this finding pupils' experienced greater levels of anxiety with being able to keep up with others during their lesson (0.06), and nervous to be able to complete tasks to a good standard (0.10), as this statistic was higher in both cases in their mixed ability group (PE) compared to the ability grouped lesson (MFL).

Table 5.8 Statistical Differences between MFL and PE between year 10 and year 11

Statement from Questionnaire	Mean	Standard Deviation	Eta Squared Value
2) I am nervous that I will not be able to complete tasks to a good standard in this subject (MFL)	3.25	1.11	0.10
2) I am nervous that I will not be able to complete tasks to a good standard in this subject (PE)	3.73	1.06	
3) I feel challenged and stretched in this lesson (MFL)	2.07	.91	0.26
3) I feel challenged and stretched in this lesson (PE)	2.94	1.13	
4) I worry that I am not able to keep up with others in this subject (MFL)	3.44	1.15	0.06
4) I worry that I am not able to keep up with others in this subject (PE)	3.82	1.04	

An important point to consider was the marked difference between the year groups with regard to enjoyment in curriculum subjects. In the year 8 and 9 analysis a large effect size was identified between the enjoyment of MFL (*M* = 2.41, *SD* = 1.03) compared to PE (*M* = 1.78, *SD* = .96), with greater enjoyment being experienced in MFL (effect size 0.23). However, when comparing these two subjects with the year 10 and 11 pupils, only a small effect size was identified (0.05), still with greater enjoyment being found in the MFL lesson (*M* = 2.20, *SD* = .99), compared to PE (*M* = 1.90, *SD* = .97). This demonstrated the value of comparing the different year groups in different analysis, as a difference between their experiences of enjoyment could clearly be identified. This enjoyment could be attributed to the way the classes were organised, as in years 10 and 11 the languages lessons were organised by ability, whereas in year 8 they were organised by mixed ability. This difference in organisation could have led to a reduction in the enjoyment levels experienced. However, this decrease in enjoyment as the pupils got older could be attributed to topics being covered, or the fact that the course covered could have been significantly harder due to studying for the GCSE course.

Further analyses of results, whether small or large statistical differences, have been outlined in tables which can be found at Appendix 17.

5.1.4 Summary of Questionnaire Results

When looking at the whole year group comparisons, it became apparent that there were mixed feelings with regard to mixed ability teaching. With regard to negative feelings it was found, with small effect sizes, that pupils finished work more quickly than others, and a perception of struggling more in this mixed ability environment. Statistical analysis also identified a moderate effect size with pupils feeling greater levels of anxieties about not completing tasks to a good standard in the mixed ability groups. Support for ability grouping was also found, as pupils suggested they felt more confident and enjoyment in this environment.

Similar findings were identified with the statistical analysis of the year 8 and 9 comparisons, where more negative feelings towards mixed ability groups was found. Small effect sizes were found with pupils finishing work quicker than others, and feelings of anxiety about completing tasks to a good standard in the mixed ability grouped lessons compared to the lesson organised by ability.

However, with the year 10 and year 11 analyses, positive responses were found with the mixed ability environment, as pupils suggested they felt more challenged and stretched in this environment compared to ability grouped lessons. Linked to this it was also possible to identify that pupils felt more confident in the mixed ability lesson, and also felt greater confidence to ask questions and felt that they would experience more success. Interestingly, pupils experienced greater levels of enjoyment in their English lessons which

were organised by mixed ability; however, enjoyment was also experienced in their MFL lesson which was organised by ability. In contrast to this, a moderate effect size found with regard to pupils finishing work quicker than others, and also a small effect for pupils experiencing anxieties about being able to keep up with others in the mixed ability grouped lessons.

5.2 Analysis of Focus Group Data

Details of the focus group analysis that took place can be found in Chapter Four (4.8.2). Four categories emerged from the analysis of the focus group data, and these were:

- positive comments towards ability grouping (5.2.1)
- anxieties about ability grouping (5.2.2)
- support for mixed ability teaching (5.2.3)
- concerns about mixed ability teaching (5.2.4)

The results for each of these categories are presented below. Key quotes are given and themes that emerged from the focus groups are described. The analysis of the focus groups that took place can be seen at Appendix 18, which demonstrates how quotes were taken from the transcripts and placed into the different categories.

5.2.1 Positive comments about ability grouping

Participants from all age groups were able to identify positive aspects of ability grouping with regard to working at a similar pace to others, allowing individuals to feel at ease as everyone was working at the same pace,

> "I like set classes as usually everyone is the same level so no-one is rushing ahead so that makes me feel at ease, and then that is sort of easier in a way" (Mary, year 8, line 51, set 2 Maths).
>
> "I feel it is easier to work in sets as everyone around you is at the same understanding... so you are not waiting around for people or you are not really far behind, so it is easier to work (Sarah, year 9, line 21, set 1 Maths).

Pupils also suggested that working with pupils encouraged them to work, as they wanted to maintain their level and not fall behind,

> "When I was in a set with people that were same I wanted to maintain being the same but when you are in a class with people who are above you you can drift and it doesn't really matter because it is less likely that the teacher will notice" (Jen, year 11, set 2 Maths, set 3 Science).

One pupil suggested the benefits that teachers can experience from ability grouping, "...from the teachers perspective it is a lot easier...for them to have pupils who are at the same pace or think the same way" (Sophie, year 11, line 50, set 7 Maths).

The main support for ability grouping came from pupils referring to their preference of working at the same pace as others, and not having concerns about being left behind or others racing ahead. Pupils suggest that this appropriate pace actually forced them to work hard, which allowed them to maintain their position within the set. This was supported further when pupils suggested that working within in a mixed ability group allowed them to drift, compared to being in an ability grouped lesson where pupils wanted to maintain a certain level.

It was suggested in the focus groups that the individual teacher was able to influence the attitude that pupils have towards the particular lesson, and consequently their feelings towards how the groups were organised for that curriculum subject. Also, in the year 10

focus group pupils reported that they felt more confident with Mathematics compared to Science as they had been in the sets for a longer period of time, which allowed them to get used to the sets. For example Jane (Year 10, line 92, set 7 Maths, set 6 Science) said "...we should have had Science sets to get in the flow, because the good thing about Maths is that we have been in our sets for 3 years and that is why we feel so comfortable". This confidence could be attributed to the fact that pupils have become used to the system of ability grouping in Mathematics, and this habituation causes pupils to prefer ability grouping in Mathematics as opposed to Science.

Pupils in the top set highlighted the confidence that can be gained from being placed in a top set, or being moved up a set. This confidence which the pupils referred to could relate to their self-esteem, as their perceptions of their capabilities could have been crucial in their success or failure. If this was reinforced by being placed in the top set then this could have had a potentially positive effect on their levels of self-esteem. This was experienced by a pupil in year 10 who said,

> "I thought I was awful at Science, but when last year they said I was going into set 1 that really boosted my confidence a lot...and now I go into that lesson feeling that I am better than I thought" (Annette, year 10, line 47, set 2 Maths, set 1 Science).

Pupils in lower sets were also able to identify the benefits that individuals can gain from being moved up as Kerry explains, "I think everyone would always be like really pleased if they were told to move up..." (Year 11, line 80, set 6 Maths, set 6 Science). Pupils also recognised that being placed in a high set would give them positive reinforcement that they were good at the subject. Kerry, a pupil in year 11, goes further to explain that she thinks

"...people like the subjects that they are good at, and if people are telling them they are good at a subject then they are going to get the confidence" (Year 11, line 142, set 6 Maths, set 6 Science).

5.2.2 Anxieties about ability grouping

It was discussed during the year 10 focus group that, despite the confidence that can be gained from being placed in a top set or being moved up, pupils thought it was far more challenging being placed in a low set when an individual thinks they are good at a subject. For example Hannah explained that she had a friend who thought she was good at a subject, but then was placed in a low set and she took that really hard. Hannah thought that "...the detriment it can do if you think you are good at something...outweighs if you think you are bad at something and get put in a higher set" (Year 10, line 67, set 1 Maths, set 1 Science).

The levels of confidence referred to here could be linked to self-esteem, as pupils indicated that if they were placed in a low set it would make them feel "...useless and not feel very confident at all" (Annette, Year 10, line 52, Set 2 Maths, Set 1 Science). Kerry supported this and felt that "...your confidence can be depleted if you are put in a lower set" (Year 11, line 149, set 6 Maths, set 6 Science).

Further anxieties were linked to pressures that were felt by pupils to keep up with others in the top set, and maintain a high standard. This was raised as a concern in the year 8 and 10 focus groups, where pupils in the top set highlighted pressures they felt with regard to keeping up with other pupils and pressures from teachers to reach high standards. Hannah in year 10 reported "...there is a lot of pressure on you in the top set to do really well and work at a fast pace" (year 10, line 88, set 1 Maths, set 1 Science). Annette also experienced the pressure to keep up with everyone else, and ensure that she maintained her ability and did not fall behind (Annette, year 10, set 2 Maths, set 1 Science).

Pupils in the top set highlighted concerns with regard to the number of pupils in the set, as it can be hard to get the help they felt they required,

> "For me in my Maths set the class is so big and lots of the people get everything really quickly and if you don't get it there isn't time for things to be explained fully. There is 28 in the class so it is really big, so most of the time we ask our friends and not the teacher" (Julie, year 8, line 16, set 1 Maths).

This could be a cause for further anxieties for the pupils, as there were pressures related to the top set with the pace, volume and difficulty of work, and if pupils felt they were not keeping up with others and were not able to get the help they required from a teacher then they could become anxious.

This however, was not solely related to the top sets. For example, Teresa who was in set 3 of 6 in Mathematics, highlighted concerns that she had in relation to keeping up with others in her set,

> "...but if you are in Maths and you are a bit slow and everyone else is going faster you start to worry about whether you should be in this set" (Teresa, Year 8, line 46, set 3 Maths).

Anxieties in relation to sets were also highlighted due to not being pushed as much in lower sets compared to the top set, where pupils felt teachers were content to let them work at the level they were at and not try to push them further, suggesting that teachers had lower expectations of those in the lower sets. This push referred to both the pace of the lesson and intellectual challenge that was given to the pupils, as those in the lower sets felt that this push did not happen and only occurred in the higher sets,

> "Now in Science as well you are only competing against averages in your set, whereas before you were competing against the whole year group. So before you were trying to get a good mark across the whole year group, but now if you are only to do well amongst your class your teacher might not push you beyond that and possibly just be content with a B where actually I want to be getting an A*" (Jane, year 10, line 61, set 7 Maths, set 6 Science).

Sophie remarked that she did not feel as driven about wanting to succeed as she was in a low set,

> "...being down in the lower sets sometimes there is less of an incentive in a way to work hard" (Sophie, year 11, line 20, set 7 Maths, set 5 Science).

One final concern in relation to ability grouping was the confidence pupils had with the system and processes of ability grouping. One pupil in year 9 felt that she needed more feedback on her progress,

> "...I don't think we are told enough about how we are doing in the division. For example people are moved up or moved down and they don't really know why. There should be a warning from the teacher that they are maybe struggling and that they might be moved down, I think that might be a better way of doing it" (Amy, year 9, line 16, set 3 Maths).

It was also felt that more transparency with the system was needed with teachers being more open and honest. The use of tests and exams were also discussed in the focus groups, where pupils felt that they were only used to determine sets, and decide whether pupils should move up or down sets. Clare stated that "they say it is not based on tests, but we always get moved up and down just after the tests...so it is a big contradiction" (Year 9, line 41, set 1 Maths). The strive for wanting the teachers and school to be open and transparent about what goes on was highlighted by one pupil,

> "I would rather when they approached sets they were just honest and say it is just done by ability, especially in this school it is so easy to notice that it is just down to the grades and marks that you get for tests" (Sophie, year 11, line 39, set 7 Maths, set 5 Science).

5.2.3 Support for mixed ability teaching

In the year 9 and year 11 focus group, support was shown for mixed ability grouped teaching in relation to learning from each other, and the benefits that can be gained from being surrounded by others who were good at subjects and hearing their views and ideas. This collaboration was suggested as being very beneficial for pupils, allowing them to see topics in a different way and hearing the different views allowed them "...to improve being around people who are better" (Penny, Year 11, line 106).

One pupil was able to recognise the different curriculum subjects, and mixed ability may suit it better,

> "...I think English is different as it is much easier to feed off each other, and if you are not as good sometimes they are able to understand it better when they hear different people in their class say something...that might allow you to see something in a different way as it can be really good to hear what other people think" (Mary, year 9, line 129, set 2 Maths).

Pupils were able to describe increased confidence levels and reduced levels of stress in relation to mixed ability groups, and how they felt more comfortable in this environment. As Teresa in year 8 suggests that "...if you are a bit slower or faster in a mixed class then you think it doesn't matter because everyone is different, so I definitely feel a lot more relaxed in mixed classes" (Line 48, set 3 Maths).

This increased confidence could lead to reducing the anxiety pupils' had mentioned feeling previously within ability grouped lessons, which can in turn could have led to a more positive learning experience within the classroom. Interestingly, one pupil suggested that she preferred it when the class were working at different paces (Julie, year 8, set 1 Maths); this was in contrast to what was discussed previously in 5.2.1, where working at the same pace as others was suggested as a positive towards ability grouping.

5.2.4 Concerns about mixed ability teaching

In contrast to the finding outlined above, one concern raised in all of the focus groups with regard to mixed ability groups, was pupils feeling left behind and finding that work moved too quickly for them to keep up with. This was discussed in the year 8 focus group, where Jenny explained that "...loads of people in my class get things really quickly and I am just sitting there not really knowing what to do" (Year 8, line 23, set 2 Maths). This created a great deal of anxieties amongst the pupils that can be seen in table 5.9 below.

Table 5 9 Concerns regarding mixed ability classes and work moving too quickly or being left behind

Participant	Quote
Jenny – Year 8 (line 19) Set 2 Maths	"...loads of people in my class get things really quickly and I am just sitting there not really knowing what to do"
Teresa – Year 8 (line 23) Set 3 Maths	"...in year 7 when Maths was in our form groups people were racing ahead already finished and others were still on the first question"
Adele – Year 8 (line 32) Set 4 Maths	"I sometimes find in languages that work goes too quickly and I miss things, then the next lesson I still don't understand and then I start to panic that I have missed things that I will need for the end of year exam and get myself into a state"
Lucy – Year 9 (line 61) Set 4 Maths	"I wish we were set in Spanish, because in my class what they do is they have all the best people at the back, and the worst people at the front. Because you all get set the same work, and you can see the difference between the different rows. Whereas if we were set we would be given work that is more appropriate to your level. The people at the back always finish really quickly, whereas the people at the front are rushed along and you end up asking the people behind you for help"
Isabella – Year 10 (line 32) Set 3 Maths Set 2 Science	"...but now I have been thrown back into mixed because I am not in fast track. So I have people who are way above my ability in my class, and have found going from being in a set to not being in a set very difficult"
Ruth – Year 11 (line 119) Set 1 Maths Set 1 Science	"...they find that in their class they have one person who is literally ridiculously good and is virtually bilingual and then at the other end you have someone who is just doing it because they have to and they really don't like it because they are not good at it, and that really does change the pace of the lesson"
Penny – Year 11 (line 126) Set 3 Maths Set 1 Languages Set 2 Sciences	"I have a friend who is quite good at French, and she has said to me that she finds it frustrating as lessons go quite slowly. So I think it is hard if you have a wide variety of abilities..."

If the pace of the lesson was appropriate then this may have allowed pupils to feel at ease, but a clear finding from the focus group was that pupils found this environment overwhelming and they felt like they were being left behind and this could have led to increased levels of anxiety in lessons. This could then really impact on the success that a pupil may have experienced in lessons, as if they felt confident and comfortable in a lesson they were more likely to succeed compared to if they were feeling anxious.

The analysis of data from the focus groups also showed that pupils had a number of concerns about their mixed ability lessons, as they experienced a lack of confidence from being surrounded by others who were stronger or who experienced more success. This was

in contrast to the findings discussed in 5.2.3, where pupils felt they could learn from each other in a mixed ability environment.

This related to experiences of not wanting to contribute to lessons or answer questions due to feeling self-conscious, and feeling that others would have had better answers,

> "If you are in a much bigger class you can feel really self-conscious about what you are saying...you don't want to put your hand up and get it wrong and slow down the people who find it really easy... (Amy, year 9, line 106, set 3 Maths).

One pupil highlighted that she felt self-conscious in a mixed ability class, as "...there is always someone who is better than you, and you don't like feeling that you are worse than someone. Compared to a set where you are all equal, where you all either get it or you don't..." (Sophie, year 11, line 156, set 7 Maths, set 5 Science). However, it could be argued that even in a lesson organised by ability there would still be a variety of abilities, albeit less than a mixed ability environment.

In the year 11 focus group, for example one participant Jen, was concerned as she felt that she had deteriorated in languages since she had moved back to being in a mixed ability grouped class, where she felt that "when we stopped being in sets is when I started to go down in languages...when you are in a class with people who are above you you can drift and it doesn't really matter because it is less likely that the teacher will notice" (Jen, Year 11, line 26, set 2 Maths, set 3 Science).

Throughout all of the focus groups it was felt that pupils took the mixed ability classes less seriously than those organised by ability, and this could be linked to differences in abilities again,

> "...if it is mixed ability then there are some people who are a bit frustrating as they don't seem to be trying to get it and you want to get on or there are people speeding ahead and you haven't got it yet" (Teresa, year 8, line 44, set 3 Maths).

This over a long period of time could have led to affecting pupils' levels of motivation, due to the frustrations of other pupils not taking the lesson as seriously and focusing on the tasks set.

To support the findings that are discussed here, further quotes can be found at Appendix 19.

5.2.5 Summary of Focus Group Findings

From the analysis of focus groups it was possible to identify that there was a balanced view reflected, incorporating positive and negative comments towards both ability grouping and mixed ability groups.

Overall, pupils identified the benefit of ability grouping with regard to working at a similar pace and ability with others, whilst being aware that conversely ability grouping can create pressure. Whilst pupils identified the benefits of mixed ability grouping with regard to learning from each other and having a more relaxed learning environment, they also identified that this can be challenging when the lesson moved along at different paces. This can also create anxieties when pupils felt like they had been left behind, or others were moving on quicker than them.

5.3 Summary of both Questionnaire and Focus Group Findings

It can be seen from the results there were many conflicting findings, giving both positive and negative indications towards ability grouping and mixed ability groups.

From the statistical analysis of the data from the questionnaire it was possible to identify more support for lessons to be organised by mixed ability compared to lessons organised by ability, however there were still some negative feelings expressed towards mixed ability lessons.

The focus groups reflected a rather balanced view of ability grouping, with both positive and negative comments from the pupils. In contrast to the questionnaire findings, the focus groups revealed more negative comments and feelings towards mixed ability lessons. This could have been due to the freedom that was allowed in the focus groups for the pupils to express their thoughts and feelings, and for discussions to develop, whereas the questionnaire simply required pupils to respond to statements. This development of conversations in the focus groups could have allowed for a more balanced discussion to take place, revealing a more balanced view of the groupings.

With regard to motivation, it was possible to identify that pupils felt their self-esteem, specifically linked to their perception of their capabilities, could be greatly affected depending on the set they were placed in. The data also indicated the importance of tasks being set at the right level, to provide optimum challenge.

As can be seen from the results the findings were equivocal, with both positives and negatives identified for mixed ability groupings and ability groupings in different curriculum subject areas.

5.4 Summary of Chapter

This chapter outlined the results that were obtained from the data collection methods, the questionnaire and focus groups. The results that were obtained from the data collection methods provided valuable insights into the perceptions of pupils, the questionnaire giving insight across the four year groups, and then the focus groups giving more in depth responses to gain an understanding of the experiences of different individuals.

The next chapter discusses the results outlined here in relation to the research questions and to previous literature.

Chapter Six

Discussion

6.0 Introduction

This chapter discusses the results that were collected from both the questionnaire and focus groups in relation to the literature, drawing conclusions from the vast volume of data that was collected. The discussion is organised in relation to the research questions (6.1), then an overall summary is given (6.2), throughout the discussion the results are also discussed in relation to previous literature. Finally a summary of the chapter (6.3) is made.

6.1 Data gathered in Relation to the Research Questions

Each research question is discussed in turn, detailing the results that were obtained from the questionnaire and focus groups.

6.1.1 Research Question 1: How do pupils perceive their learning experience in an independent secondary girls' school, comparing mixed ability lessons and ability grouped lessons?

The evidence was ambiguous about pupils' perceptions of their learning environment, where both positive and negative aspects were identified for the learning environment in both ability grouped lessons and mixed ability lessons. For example, pupils in year 10 and 11 found that they were challenged and stretched more in their mixed ability lessons, yet they also reported finishing work more quickly than others in this environment. This inconsistency with the findings was similar to previous research, as Davies, Hallam, and

Ireson (2003) found that there was no easy method or decision for schools to determine how groupings were organised.

Pupils in year 10 stated that they preferred Mathematics sets compared to Science sets, this could be due to the fact that they had become used to the process of the Mathematics sets; this familiarity may have allowed them to have greater confidence in these lessons compared to the Science sets. If the Science sets had been in place longer or the same amount of time as the Mathematics sets, then the pupils may have felt more positive about both curriculum subjects.

This study investigated a number of curriculum subjects across the Case Study school, and this allowed for a greater understanding of the pupils experiences across these curriculum areas as opposed to just focusing on one curriculum subject. It was interesting to consider whether the findings were a reflection of the curriculum subjects investigated, or the different teachers of the curriculum areas. Pupils could potentially have reacted differently to different teachers, and this could have been regardless of the way the curriculum subject was organised. This supported previous research, for example where Ireson and Hallam (2005) suggested that English teachers could demonstrate more empathy towards pupils in comparison to Mathematics or Science. This could be attributed to the type of teachers that the curriculum subjects may attract, or simply be due to the type of work that might be covered in the different areas. For example, English naturally lends itself to more group discussions, and opportunities for pupils to discuss their own thoughts in comparison to Mathematics or Science. These different types of approaches or different work covered could be more suited to certain individuals. This was why this research focussed on four curriculum subjects as opposed to one curriculum subject, as it was thought that this would

potentially combat any impact different teachers or preferences may have on the results. However, this was still thought to be a major factor when considering the results identified.

The analysis of the year 10 and year 11 focus group showed that the confidence and increased self-esteem that can be gained from being placed in a top set, or being moved up, was potentially reinforcing for pupils that they were good at a particular subject. However, despite the increase in self-esteem that can be achieved, the data showed that it was far more challenging and potentially detrimental to an individual's self-esteem being placed in a low set when an individual thought she was good at a subject. Previous research supports this finding, as it has been suggested that placement in a low ability set can have implications on the levels of pupils' motivation towards the subject, levels of self-efficacy, and their perceptions of competence (Bandura, 1997; Muijs & Dunne, 2010; Schunk & Parajes, 2005).

If pupils already felt particularly confident about a curriculum area, and then if this was reinforced by being placed in the top set this could have had potentially a positive effect on their levels of self-esteem. This supported previous literature which highlighted the benefit of ability grouping for pupils in a top set (Huang, 2009; Ireson, Hallam, Hack, Clark, & Plewis, 2002; Kim, 2012; MacIntyre & Ireson, 2002; Venkatakrishnan & Wiliam, 2003; Wiliam & Bartholomew, 2004).

Anxieties in relation to sets were also highlighted in year 11, due to not being pushed as much in lower sets compared to the top set. Pupils felt that teachers were content to let them work at the level they were at and not attempt to try and push them further. Such a difference in expectation has also been found in other research, where the expectation of teachers differed with regard to the pace of work from top set to bottom set, with increased

volumes of work and higher expectations for those in the higher sets (Ireson and Hallam, 2005).

The findings of this present research were in contrast to some previous research which highlighted the negative effects for low set pupils (Ireson & Hallam, 2005; Ireson & Hallam, 1999; Linchevski & Kutscher, 1998; Wiliam & Bartholomew, 2004). This research suggested that there can be benefits with regard to working at the same pace and smaller class sizes, which were experienced at this Case Study school in year 8 and 11, regardless of what set pupils were in. This linked to previous research by Dunne, Humphreys, Dyson, Sebba, Gallannaugh, and Muijs (2011), as they suggested that positive effects can be experienced by pupils regardless of which set they were placed in.

The data analysis of the year 9, 10 and 11 focus groups identified that pupils lacked confidence in relation to the process and system of ability grouping, and it was felt that more transparency with the system was needed, with teachers being more open and honest. It was found that information regarding how sets were organised was not given openly and pupils felt the system of how sets were organised was not always fair or transparent. It was evident that pupils strived for consistency and transparency within the system of ability grouping. This included how sets were determined in the first place, how any movements occurred and how these movements were discussed and explained to the pupils. This finding supported previous research by Muijs and Dunne (2010) which suggested that pupils' experiences of setting processes were highly influential to their school experience, and this therefore also supported what Hallam and Parsons suggested in 2012 when they implied that further research was still required in this area.

Pupils in year 11 felt that the sets were decided purely by examination results, and they felt that if sets were organised in this way this should be communicated openly, however, this also highlighted the injustice that was felt towards sets being determined in this way, suggesting that their class work, homework and previous performances in classes should be taken into account. This finding links with previous research, which suggested that when sets were organised according to test results it can be unreliable (Davies, Hallam, & Ireson, 2003). The importance of information regarding sets and movement between sets identified in this study was similar to previous research, which suggested that for ability grouping to be effective it was essential for there to be movement between groups (Devine, 1993; Gillborn & Youdell, 2000; Ofsted, 1998; Winstanley, 2010). However, previous research has highlighted issues that occurred with movement between ability groups, due to different sets potentially following different courses or a different syllabus, or taking into account the fact that different sets would have progressed at different rates (Davies, Hallam, & Ireson, 2003; Ireson & Hallam, 1999; Smith & Sutherland, 2003; Hallam & Toutounji, 1996), both of which could have made it difficult for pupils to move between ability groups. It can be understandable why movement between sets could be difficult if different sets were covering different work and would have progressed at different rates, however it seems perfectly acceptable for pupils to be made aware of the setting processes, and how decisions were made.

The data indicated much support from year 9 and year 10 for mixed ability groups in relation to learning from each other, and the benefits that can be gained from being surrounded by others who were good at a subject and hearing their views and ideas. This was supported by previous research which highlighted the benefit that pupils gained from

peer support, collaboration, and sharing different experiences and knowledge which allowed for both cognitive and social development (Lyle, 1999; Smith & Sutherland, 2003). Interestingly, in this research pupils were able to describe increased confidence levels and reduced levels of stress in relation to mixed ability groups, and how they felt more comfortable in this environment compared to a lesson organised by ability. This finding was similar to the work of Hallam and Ireson (2007), which also identified that pupils were more satisfied with their class when lessons were organised by mixed ability. This increased confidence and enjoyment could have been attributed to the satisfaction that pupils experienced when being able to help each when collaboratively.

However, the data analysis identified concerns raised about mixed ability groups, as despite the confidence mentioned above, pupils in year 8, 10 and 11 also experienced a lack of confidence from being surrounded by others who were stronger or who experienced more success. This related to experiences of not wanting to contribute to lessons or answer questions due to feeling self-conscious, feeling that others would have had better answers. This finding was in contrast to previous research by Benn and Chitty (1997) who identified that the type of grouping made no difference to academic achievement.

Therefore this research highlighted the impact that mixed ability grouping could have had on the learning of pupils, in terms of their confidence within lessons which in turn could have led to affecting their academic potential. It was important that schools were aware of the impact that different types of grouping can have, as being aware of these issues can allow schools and teachers to potentially counteract the issues raised to allow for a positive and comfortable learning environment for pupils to be created.

6.1.2 Research Question 2: Is the motivation of pupils affected by ability grouping, with regard to an individual's belief of competency within curriculum subjects, and persistence to complete tasks?

The analysis of data, involving all year groups from the questionnaire, indicated that greater enjoyment was experienced in lessons organised by ability, which indicated that pupils enjoyed situations or lessons where the challenge was set at the right level. This supports previous work by Deci and Ryan (1985), who found that motivation was affected if tasks were too easy or too difficult, and if the level of challenge was appropriate then this could have led to increased levels of motivation. This was supported further as the results indicated that pupils finished their work quicker in mixed ability lesson and they were more likely to leave a task as opposed to trying it and getting it wrong. This suggests that their levels of motivation were reduced, due to either the task not being aimed appropriately for their ability, or pupils having compared themselves with others in their group who may have experienced more success than them.

Greater levels of challenge were experienced in years 10 and 11 in the mixed ability groups compared to the lesson organised by ability, however greater enjoyment was expressed in the lessons organised by ability from all year groups. It was interesting to consider whether pupils interpreted this challenge in lessons in a positive or negative way, as the data gave little indication towards this. It could be suggested that due to the pupils indicating more challenge in the mixed ability group, but more enjoyment in the ability group, they may have been interpreting this challenge in a more negative way. This finding was similar to previous research, where Deci and Ryan (1985) suggested that intrinsic motivation depended upon the individual's perception of competence. Bandura and Schunk (1982)

suggested that these comparisons could have been exacerbated if pupils were in mixed ability groups where there could be vast differences in abilities. Therefore the challenge that was experienced by pupils in the mixed ability group in this present study could have been interpreted in a more negative way, which may have led to more enjoyment being experienced in the ability grouped lesson.

Further support for this finding was identified when the data from years 10 and 11 also showed that pupils experienced greater levels of anxiety, and this was linked to pupils perceiving that they struggled more in the mixed ability groups. This could be attributed to pupils being aware that in a mixed ability environment, where everyone was progressing and working at different rates, pupils could have felt like they were being left behind, and this could have led to pupils feeling self-conscious and led to feelings of anxiety. These feelings of anxieties could cause some pupils to avoid tasks, so that they were not seen to have failed at a task, potentially resulting in a lack of motivation towards this curriculum subject. It was important to consider how different individuals could have reacted differently to these challenges in a mixed ability environment, as Schunk and Parajes (2005) identified that an individuals' perception of themselves and their capabilities were vital in their success or failure in achievement settings. Once again confirming the work by Deci and Ryan (1985), that all work needs to be set at an appropriate level to provide challenge.

The data indicated that pupils felt they finished work quicker than others in a mixed ability environment in all year groups. This could potentially be because the pace of the lesson was too slow and pupils may have found this boring, especially if they felt they had finished and were left waiting for others. Pupils also reported feeling frustrated when extension work was set if they finished work quicker than others, and they resented having to do extra

work. Linked to this pupils in year 8, 10 and 11 identified that it was difficult being around other pupils who were stronger or who got tasks much more easily, being surrounded by others in the mixed ability environment who potentially always experienced more success could have become demoralising. Van Houtte, Demanet, and Stevens (2012) identified that high achieving pupils in a mixed ability grouped environment experienced greater levels of self-esteem when they were grouped with lower achieving peers, so if high achieving pupils experienced this increase in self-esteem, it could be suggested that lower achieving pupils could have felt a decrease in their self-esteem being surrounded by others experiencing more success than them.

However, despite the concerns and dissatisfaction highlighted with regard to mixed ability groups, it was suggested by the data from the questionnaire that pupils in years 10 and 11 felt they would have had greater levels of success in their mixed ability groups compared to the lessons organised by ability. This can be attributed to the fact that in the focus group pupils from year 9 reported feeling more relaxed in this environment, and this could have led to less pressure, which could have allowed them to think they would have been more successful. As Smith and Sutherland (2006) found that pupils in the top sets found an increased pressure and high expectations, and if this could have been avoided in mixed ability groups then this would surely be beneficial for pupils. On the other hand, it could be suggested that if the pressures and high expectations were managed, then this atmosphere could create an environment where challenges were set at the right level and pupils would not be left waiting around for others to finish work, or potentially feel anxious to keep up with the pace of work.

Despite some of the positive outcomes mentioned above, the data analysis of the focus groups indicated that the mixed ability classes were not taken as seriously as the lessons organised by ability in year 10 and 11, and suggested that pupils were more relaxed as they were back with their friends and felt that they did not have to work as hard in these lessons. This could over time lead to affecting an individual's motivation, as if others were always messing around or not taking the lesson as seriously then that could cause others to have changed their attitude or motivation towards the curriculum subject. Previous research by Smith and Sutherland (2003) indicated that teachers believed set classes were more purposeful and focused compared to mixed ability classes, and if teachers were able to have identified this then pupils would potentially pick up on this as well.

It was clear from the current study that pupils were very perceptive to the environments that were created within the classroom, whether this was the attitude of the teacher or how they perceived their individual progress. So it was important that whether the class be organised by ability or mixed ability the challenge of the tasks need to be set appropriately to meet the needs of all individuals.

6.1.3 Research Question 3: Do pupils' levels of self-esteem differ depending on how the grouping of the lesson is organised?

The data analysis from all year groups was equivocal with regard to levels of self-esteem and feelings of anxiety or confidence in both ability grouped and mixed ability lessons.

Marsh and Hau (2003) identified that self-esteem can impact the academic achievements of individuals, including their persistence towards tasks, their accomplishments, their academic decisions, and how they felt about themselves. Academic decisions and persistence could

be linked to their willingness to have become involved in lessons, and in this research it was found that pupils in years 10 and 11 felt more confident to ask questions in the mixed ability lessons compared to the lessons organised by ability. It was identified that pupils in years 10 and 11 felt increased confidence with regard to how well they would do in the subject, with this confidence being higher in the mixed ability lesson. In this present study the pupils in years 10 and 11 felt more willing to become involved in lessons and felt they would experience more success when they were organised by mixed ability. Therefore it could be suggested that pupils' levels of self-esteem were higher in the mixed ability groups.

There were mixed results in relation to the confidence that pupils felt in lessons, where levels of confidence differed in relation to the curriculum subject. It was not conclusive as to whether more confidence was experienced in the ability group or mixed ability groups. This could be attributed to the differences in the curriculum subjects as opposed to the difference in the way the groups were organised, and was potentially very dependent upon the individual's preferences for the different curriculum subjects, or for a particular teacher. For example, pupils might prefer the more discussion based activities they may possibly experience more in English as opposed to Physics, or may have preferred that individual teacher, and these may have had no relation as to whether the group was organised by ability or not.

The analysis identified that pupils in years 10 and 11 felt they would struggle more in the ability grouped subject compared to the mixed ability group. However, anxieties about not being able to complete tasks to a good standard in years 10 and 11 were identified as being lower in the ability grouped lesson. It was interesting to consider the data when conflicting findings like this emerged, and attempting to draw conclusions from this can be challenging.

The feelings of struggling could be attributed to the desire to complete tasks to a high standard, and as highlighted previously the pressure that pupils identified with regard to maintaining a high standard. Marsh and Hau (2003) attributed this to the Big Fish Little Pond Effect (BFLPE) which was discussed in greater detail in Chapter Two (2.9.1). This effect could have explained the findings, where pupils may have felt they were struggling due to being surrounded by pupils of a similar or more academic ability, compared to a mixed ability group where there would have been pupils who were potentially not as strong. However, despite this, anxieties were then lower in this ability grouped lesson with regard to completing tasks to a pleasing standard, once again demonstrating that individual pupils may have reacted differently to the same situations.

Overall, it was difficult to determine whether levels of self-esteem were affected by the different organisation of lessons. The results from this research did suggest that pupils were able to feel more relaxed in mixed ability grouped lessons, where there was less pressure and a wider mix of abilities giving them the confidence to feel able to contribute. This conflicts with the findings that were discussed with the previous research question where pupils found their ability grouped lessons more purposeful, and found that the challenge of tasks was suitable.

6.1.4 Research Question 4: Are levels of anxiety affected with regard to the pace of lessons, whether pupils can keep up or meet the demands of the lesson?

The research from the questionnaire showed that levels of anxiety were higher with years 10 and 11 in the mixed ability lessons with regard to keeping up with others, however being able to maintain the fast pace of the lesson was also highlighted as a concern within ability grouped lessons in the focus group in year 10.

A significant finding here was in support of ability grouping, where it was found that pupils in all year groups rated finishing their work quicker than others in the mixed ability grouped lesson than in ability grouped lesson. This was also indicated in previous research where it was suggested that teachers aim their lessons at the middle of the group (Newbold, 1977), resulting in faster or slower working individuals having to adapt. Smith and Sutherland (2003) pointed out that the pace of lessons was a concern as well, when they suggested that mixed ability groups could be difficult to provide sufficient challenge for the most able pupils. Clearly this was a concern that was identified in this present research as well, where both the focus groups and questionnaire data showed that pupils were working at different paces, which could affect the progress of individuals.

In support of the above finding, higher levels of anxiety in years 10 and 11 were found with regard to keeping up with others in the mixed ability group compared to the ability set lesson was also identified. It was suggested that in the mixed ability group pupils felt left behind and found that work moved too quickly for them to keep up. As discussed previously, this finding was in contrast to previous findings from Benn and Chitty (1997) who suggested that working in mixed ability groups made no affect to academic achievement and performance. The current research suggests that mixed ability grouping can affect the academic performance of individuals, if they were experiencing being left behind and felt not able to keep up with others which could in time have led to anxieties.

However, despite the finding above, the current study revealed that pupils in year 10 and 11 felt more stretched in their mixed ability group compared to the ability grouped lesson, which could suggest that teachers may have adopted wider ranges of teaching methods during these lessons to accommodate their wider range of abilities. This was similar to

previous research by Wiliam and Bartholomew (2004), who identified that teachers were more likely to use a wide range of approaches and take into account the individual differences of pupils when mixed ability groupings were in place, which could account for the findings in this research with regard to pupils feeling more challenged and stretched. It could be argued that pupils felt more challenged and stretched in the mixed ability lesson, as it was possibly more obvious when they were being challenged more compared to other pupils, for example being set extension work or being given different tasks.

The benefits of ability grouping with regard to working at a similar pace with others was found across all age groups in this study, allowing individuals to feel at ease as everyone was working at the same pace and not feeling left behind. The analysis of the focus groups suggested that the appropriate pace actually forced individuals to work hard, which allowed them to maintain their position within the set. This was supported further when year 11 pupils suggested that working within a mixed ability lesson allowed them to drift, compared to being in an ability grouped lesson where pupils wanted to maintain a certain level. Research carried out by Muijs and Dunne (2010) was similar to this as it was shown that a positive effect of ability grouping was allowing pupils to work in classes at a pace that was suited to them with other pupils of a similar ability, and this was relevant to all abilities and sets. It was clear from the findings that the suitable pace of lessons that was provided in ability grouped lessons was the main benefit and positive element that was identified in this research.

However, when ability grouping was discussed, regardless of what set pupils were in, concerns were raised in year 10 in relation to being able to keep up with others, which made them doubt their suitability for their set. This was similar to previous research with

regard to the negative effects of ability grouping, where negative effects or anxieties were not solely restricted to the lower sets, as research identified that pupils in top sets have indicated the pressure, the high expectations, and the fast pace that they have experienced in top sets (Boaler, 1997a, b, c; Boaler, Wiliam, & Brown, 2000; Smith & Sutherland, 2006).

There were contrasting findings in the results, where pupils in years 10 and 11 identified anxieties about completing work to a good standard in both mixed ability and ability grouped lessons. This links back to a previous point where issues that were raised by pupils could simply be due to the curriculum subject, as opposed to how the curriculum subject was organised. This could also be attributed to the different teachers for the individual curriculum subjects, as pupils may have had their own preferences for teachers, and this could link to how they felt about a curriculum subject.

As discussed in 1.2, this Case Study school was a high achieving selective school, meaning that pupils would be surrounded by talented and high achieving peers, so there were potentially pressures that these pupils would face and experience with regard to their desires to complete work to a high standard and achieve high examination results. Therefore, if this Case Study school were to be compared to a comprehensive school, the competition and pressure that pupils might face regarding examination results would potentially be different, and this could possibly lead to different levels of anxieties being reported. This once again could link back to the BFLPE, where pupils in the Case Study school may have been comparing themselves to pupils of similar or higher ability, compared to a comprehensive school where the range of abilities would have been much greater.

This research, similar to the findings by Hallam and Deathe (2002) identified that when pupils gained more experience of ability grouping they preferred this method over time

compared to mixed ability teaching. Although this finding did vary with different curriculum subjects, the analysis suggested that the individual teacher was able to influence the attitude that pupils had towards the particular subject, and consequently their feelings towards how the groups have been organised for that curriculum subject. Also, this research identified that pupils in years 10 and 11 felt more confident with Mathematics compared to Science as they had been in these sets for longer periods of time, which had allowed them to get used to the sets and this system.

This confidence could be attributed to the fact that pupils had become used to the system of ability grouping in Mathematics, and this familiarity could have caused pupils to prefer ability grouping in Mathematics as opposed to Science. It could be suggested that if pupils had setting in Science for the same period of time as Mathematics they would have felt the same, as the familiarity mentioned above would have allowed them to get used to this situation. This is something that the school could consider to allow pupils to become more used to the system in preparation for their GCSEs, as opposed to introducing ability grouping at the start of GCSE course. The pupils felt that if the ability setting started earlier in Science, prior to the start of the GCSE syllabus, then it would allow time for the groups to settle, and for any changes to be made in case pupils have been misplaced in the wrong set.

Despite the familiarity that was found, this research also identified anxieties with ability grouping which were linked to pressures that were felt by pupils in year 10 to keep up with others in the top set, and maintain a high standard. This was similar to previous research by Smith and Sutherland (2006) with regard to pressures that pupils experience in the top set, regardless of the curriculum subject.

The conflicting results discussed here in response to the fourth research question suggest that the learning environments can be interpreted differently by different individuals, some would have liked the challenge of being placed in a set and having to work at a fast pace, whilst others would have found this daunting. Conversely, some individuals would have liked a mixed ability lesson where they felt more relaxed with a mix of abilities surrounding them, whilst others would find this frustrating as the lesson and tasks would move on at differing paces.

6.2 Overall Results

The results that were obtained and analysed offered a number of interesting conclusions, whilst also giving some equivocal findings. Drawing clear conclusions can be challenging when the results do offer a variety of different viewpoints towards both ability grouping and mixed ability groups.

The first research question identified that the evidence from the data analysis was equivocal regarding pupils' perceptions of their learning environment. With regard to the second research question the analysis of the data indicated that greater enjoyment was experienced in lessons organised by ability, which indicated that pupils thrived in situations or lessons where the challenge was set at the right level. The data analysis indicated that pupils' experienced higher levels of self-esteem in the lessons organised by mixed ability in response to the third research question.

When answering the final research question, the data showed that levels of anxiety were higher in the mixed ability lessons with regard to keeping up with others, however being

able to maintain the fast pace of the lesson was also highlighted as a concern within ability grouped lessons.

As can be seen from the results discussed and highlighted above, there were both positive and negative aspects identified towards both ability grouping and mixed ability grouping. It was important to note the anxieties that were highlighted regarding the pressures being placed on the pupil's in the top set, and the anxieties about being moved down a set. However, some pupils suggested this pressure provided a level of motivation to ensure they continued to work at a level that was required, so perhaps this pressure could have had a positive effect for some pupils. This was an interesting point to consider, as this pressure could cause pupils to react in different ways, as mentioned above this could have motivated pupils, however, this could have also created an element of fear of being moved down. Pupils could also have experienced pressure from parents as well, pressures to perform to a high standard, be in the top ability groups, and to achieve high examination results. This could be linked to the fact that the Case Study school was fee paying as well, this could have also led to pressures and assumptions from parents that high examination results would be achieved as they were paying for their child's education.

Pupils identified that working in ability groups with others of the same ability allowed them to work efficiently with others at a pace that was suitable, not being rushed or left behind with work. This liking of ability grouping was found with pupils in the bottom sets as well, which was significant as previous research has tended to only find positive experiences with pupils in the top sets. The pace of work and lessons led to the main concern and anxieties identified in this study, with regard to mixed ability groups, where pupils experienced

anxieties regarding not being able to keep up with others, or frustrations about finishing work before others and having to wait or be set extension work.

When considering the positive aspects with regard to mixed ability groupings, the most significant aspect identified suggested that this specific environment allowed them to feel more relaxed and comfortable in their lessons, which created less pressure and resulted in greater levels of confidence and self-esteem.

Some comparisons that took place in data analysis were between two mixed ability lessons, so it could be suggested that the results may not offer valuable comparisons. However, it highlighted the fact that differences could still be identified between curriculum subjects suggesting some differences were due to the individual pupils liking or suitability to different curriculum subjects, or their preferences for different teachers, as opposed to how the curriculum subject was organised. Regardless whether they were small or big effect sizes, it was possible to identify that pupils do experience differences, even if the groupings for the curriculum subjects were organised in the same way. This was why it was beneficial in this Case Study to investigate two mixed ability curriculum subjects and two ability set subjects, as this hopefully allowed for a greater understanding of the experiences of pupils in these environments; as opposed to only focusing on one curriculum area, which could be purely attributed to the pupils liking for that one particular curriculum subject.

As mentioned above, when discussing results it was important to consider the effect that the teachers would have had upon the results, as regardless of the particular curriculum subject individual teachers could have impacted the experience that pupils had. This could be linked to the different styles that teachers used, as pupils could have had different experiences within the same curriculum subject due to different teachers. This was

important to consider, as pupils experiences could be attributed to the type of grouping that was in place, for example ability group or mixed ability, when actually their like or dislike of this curriculum subject could be due to the teacher.

An interesting part of the results to consider was gender effects, as would boys in a single sex education in the same situation interpret their experience of the curriculum subjects in the same way? It could be suggested girls may have reacted differently to boys in the same situations in the curriculum subjects. Also, a factor to consider is the type of school that this Case Study focused upon, as would the same results have been found in a mixed independent school, or boys' independent school, or even a comprehensive school?

It was possible to identify from this Case Study school that resources available to pupils, regardless of what ability group they were placed in, were equal. As can be seen from Table 3.1 in Chapter 3, the class sizes reduced for the lower sets, allowing them to have greater access to a teacher in these smaller classes. This was similar with previous research from America, which found that class sizes were reduced for lower ability pupils (Betts & Shkolnik, 2000; Rees, Brewer, & Argys, 2000). However, in contrast to these findings, Oakes (1992) found that there was inequality with resources between the different sets, with higher sets being given better teachers and smaller classes for example. Therefore, this Case Study school was successfully attempting to meet the needs of all pupils by allowing the same level of resources and opportunities being open to all pupils, regardless of what set they were placed in.

6.3 Summary

This chapter has discussed the results that were analysed, drawing upon previous research and offering explanations to the findings.

The next chapter draws the final conclusions of the research study, criticisms and limitations are discussed to demonstrate an understanding of the results obtained, and suggestions for future research are outlined.

Chapter Seven

Conclusions

7.0 Introduction

This chapter offers final conclusions regarding the research, summarises the main findings with regards to each of the research questions (7.1), offers limitations of the study (7.2), recommendations from the case study (7.3), highlights the significance of the study (7.4), and finally gives recommendations for future research (7.5).

7.1 Summary of Main Findings

The results from this Case Study research have provided many interesting conclusions, whilst also offering some equivocal findings. There were both positive and negative aspects that were identified with regard to ability grouping and mixed ability groups with regard to pupil's experiences.

This study identified that ability grouping was felt to be the most suitable for allowing pupils to work at a pace that was suited to everyone, regardless of whether this was top, middle, or bottom set. However, pupils also indicated anxieties with regard to pressures of being placed in a top set, and the possibility of being moved down. Linked to this, research showed that confidence and increased self-esteem can be gained from being placed in a top set, or being moved up. Being placed in a top set or being moved up could have potentially reinforced for pupils that they were good at a particular subject. However, despite the increase in self-esteem that can be achieved, the data showed it was far more challenging

and potentially detrimental to an individual's self-esteem being placed in a low set when an individual thought they were good at a subject.

The pace of work and lessons led to the main concern and anxieties that were raised with regard to mixed ability groups, where pupils experienced anxieties regarding not being able to keep up with others, or frustrations about finishing work before others and having to wait or be set extension work.

This research indicated greater enjoyment was experienced in lessons organised by ability, which indicated pupils thrived in situations or lessons where the challenge was set at the right level, which in turn maintained levels of motivation.

When considering the positive aspects identified with regard to mixed ability groupings, the most significant aspect was that the environment allowed pupils to feel more relaxed and comfortable in their lessons, which created less pressure and resulted in greater levels of confidence and self-esteem.

7.2 Limitations

This section outlines the limitations of this research, allowing for results to be fully understood and for lessons to be learnt for future research.

The first limitation to consider was whether it was possible to determine if thoughts and feelings of pupils were specifically related to their individual feelings about the curriculum subject or how the subject was organised. It can be difficult to determine the true source of comments pupils gave, however this research investigated a number of curriculum subjects to offer pupils a variety of subjects to discuss. Linked to this factor, was the effect individual teachers could have had on the pupils, as regardless of how the groupings were organised

some pupils may like certain teachers and this would therefore impact their thoughts and feelings towards this curriculum subject.

Secondly, the fact the researcher of this case study was a teacher at the school in question could have impacted results. The participants may have tried to give responses or reactions they thought the researcher wanted, as they wanted to please the researcher who they knew as a teacher. However, this could have had an opposite effect, where it could have allowed the participants to feel at ease, and comfortable to give true responses. One main advantage of the researcher working at this Case Study school was the ability to gain access to pupils and different departments, and this may not have been possible for other researchers.

7.2.1 Limitations of the Case Study Method

The issues concerning Case Study were highlighted in Chapter Four (4.3.2), however having undertaken the research, this method was still felt to be the most suitable choice. As the purpose of completing a Case Study research at this school was to ascertain the workings in this unique environment, it was not to offer generalisations to other institutions. Krefting (1991) suggests that generalisations were not relevant in some qualitative research, as

> "…a strength of the qualitative method is that it is conducted in naturalistic settings … each situation is defined as unique and thus is less amenable to generalisation" (Krefting, 1991, p. 216).

This was supported by Stake (1995) who suggested that case studies were not completed for the purpose of generalisation or reproducibility, and should not be judged on this, the research should be judged on whether the meanings and suggestions that were created

were valued by the reader. Wellington (2000) summarised the issues of generalisability well, when he concluded that the final say was with the reader and their final assessment and judgement was the most important, it was therefore up to the researcher to present the work in a clear, honest and concise way to allow the reader to evaluate and draw their own conclusions. Which it was hoped this research project and thesis achieved for the reader.

7.2.2 Limitations of the Questionnaire

The questionnaire enabled a large number of participants to be involved in the research in a time efficient and effective way, however it could be impossible to know that the response to the questionnaires were a true representation of the views that the participants had. This could have been due to a desire to rush their responses to complete the questionnaire quickly, or despite the reassurances of confidentiality, participants could have been anxious to respond truthfully for fear of their teaching finding out.

The questionnaires were all completed at the start of the lessons to try and prevent any experiences of the lesson impacting their responses by causing a snap judgement; however recent previous lessons could still have impacted their responses if they had either a positive or negative experience in the weeks leading up to the questionnaire being administered. Therefore this could have prevented their true responses regarding the curriculum subject being revealed.

The questionnaires were completed in the autumn term, as this was hoped that pupils would have had some experiences in their new classes or sets, however there would have been no mid-year tests or changes in the sets which could have potentially influenced their

responses. Despite this, pupils could still have had bad experiences in previous years or schools, which may have impacted their responses in the questionnaire, however this could be the case at any point in the academic year and not something that the researcher could control. At this time, however, it was hoped that there was less potential for any snap judgements to be made and hopefully their responses would reflect their true feelings and opinions. The autumn term was also the most appropriate in terms of the availability of the pupils and the willingness of teaching staff to give up lesson times.

7.2.3 Limitations of Focus Groups

Whilst the focus groups all followed the same protocol with the same researcher, it was impossible for all of the focus groups to take place at the same time due to the availability of the pupils and the researcher. Therefore the different time in day could have impacted the results; however it was not thought that this would have had too much effect on the discussions or views given.

When analysing the data it can be difficult as during the process of the focus groups discussions can change the views of participants and different participants may have had different views, resulting in it being very unlikely that there will be consensus between participants (Parker & Tritter, 2006). During the focus groups it was not particularly evident that participants changed their views, however this could have been the case. There were times when participants disagreed with each other's views, and this was particularly evident during the Year 11 focus group and this can be seen in the transcripts at Appendix Thirteen. It was not felt that this changed the views of the participants though, as it appeared that the participants were able to debate their ideas without fear of being judged.

When coding the transcripts, deciding which topic fitted into which categories or whether the topic or statements fitted into more than one category was down to the interpretation of the researcher. This could have been particularly challenging if pupils referred to the same topics using different terminology. Therefore a different researcher may have interpreted the topics differently and coded them into different categories, however the results from the focus groups in this study were analysed by one researcher, so the interpretations that were made were consistent across all of the transcripts.

All of the limitations discussed above here have allowed me as researcher to gain a greater understanding of the methods of data collection methods that were utilised. In future research, I would still use the same methods, but would be more aware of the limitations that I have outlined which would allow me to potentially use the methods more effectively. I think my understanding of the data collection methods allowed me to gain an effective awareness of the limitations of these methods, and how they may have affected the results and data that were collected.

7.3 Recommendations

When looking at the results it could be suggested that a positive learning environment, regardless of ability grouping and mixed ability teaching, was created at this Case Study school by minimising the disadvantages of being in a low set. This was achieved through high teacher to pupil ratio and smaller classes, and having stimulating and high standards of teaching in all classes which met the needs of the pupils. This allowed for pupils to identify the benefits of ability grouping with regard to the suitability of the appropriate pace that could be achieved, and to not feel demoralised for being placed in a low set, or a set they felt did not suit them. A positive learning environment should also include setting

appropriate challenges for pupils, this appropriate challenge will hopefully lead to maintaining their motivation and preventing them potentially giving up on tasks.

This was supported further where it was found that even if an individual had negative attitudes or perceptions towards a particular curriculum subject or the school, this was not necessarily related to the perceptions of teachers' skills or support. This suggested that teachers can play an important role in mediating some of the negative aspects of ability grouping, this was a valuable finding that all schools can take from this research, not only the school where this Case Study took place. This supports previous research by Allan (1991), who also found that a supportive approach by teachers can help reduce the potentially negative effects of ability grouping. It seems important that whichever system was utilised within a school all teachers need to be fully invested within the system or ethos of the school, this would then allow for appropriate teaching and have led to a positive learning environment. It was also important that teachers were aware of the negative effects of systems, whether it was ability grouping or mixed ability, and try to take positive steps towards combating any negative effects that the pupils may have experienced.

A concern identified in this case study research was anxiety that was found with regard to the pressures of being placed in a top set, or anxieties about being moved down. As discussed in the previous chapter, this added anxiety could have been unique to this Case due to high pressures that pupils experienced in this particular school. However, it was important the school and teachers monitor and support pupils through the transition if there were going to be changes to the sets, and ensuring that pressures were minimised and expectations were realistic. As mentioned previously, increased pressure could have been in place due to the Case Study school being fee paying, as this could have potentially

increased pressure from parents as they were paying for the education of their children, which potentially led to high expectations of examination results.

This research highlighted the importance of consistency and transparency within the system of ability grouping; this was something that pupils strived for. This included how sets were determined in the first place, how any movements occurred and how these movements were discussed and explained to pupils. This would potentially have led to pupils having greater faith with the system, and have allowed them to feel more confident in their lessons, potentially leading to a better learning environment.

If mixed ability teaching was to be utilised then high levels of differentiation, both by task and outcome, would be necessary to support the needs of the learners. Ofsted (2008) highlighted that having the appropriate challenge for individuals was not always suitable. It could be suggested that differentiation could be an important factor for schools to utilise to allow for the needs of individual pupils to be met. It can be important for schools and teachers to prioritise differentiation with this type of grouping; however differentiation could still be beneficial in ability grouped lessons but possibly to a lesser degree. The idea of ability grouping still requiring differentiation was supported by Ireson, Clark and Hallam (2002), as even pupils in this environment who would be of similar abilities would still have different needs, and would need work to be set at the appropriate level to challenge pupils.

This Case Study found that when ability grouping was utilised it was important to treat all pupils equally regardless of what set they were in, and focus on the effort and progress of each individual as opposed to purely on achievement, and this was similar to previous research by Hallam and Ireson (2003). If pupils felt this was happening then they were potentially more likely to have felt more confident with the curriculum subject.

Finally, the confidence in ability grouping that was highlighted could have been attributed to the habituation and familiarisation of this system. Pupils in this Case Study raised concerns with regard to their experiences within their Science ability groups, and suggested that this was potentially accentuated due to the setting process only beginning in year 10. The pupils suggested they were more comfortable with their Mathematics groupings as they have had time to get used to them, and time for them to be placed in the right set and for adjustments to be made. Therefore the issues and dissatisfaction that were raised with regard to ability grouping in Science could have been reduced if this system had been in place before the commencement of their GCSE course. This was something that schools could consider, especially this Case Study school, where it may be worth considering the stage at which ability grouping should be introduced.

It was clear from the research here that pupils are very aware of the environments they are placed in, and this made me very aware of the teaching environments that I create as a teacher. For example, there may have been subtle methods of differentiation that I may have used to stretch the more able or make tasks easier for the less able, and since having completed this research, whilst these methods are still valuable, I am more conscious of how aware pupils are to this, and will consider more carefully how I introduce these tasks.

7.4 Significance of the Study

The findings from this study contribute to the existing body of knowledge in several ways. First, previous research in this area was undertaken in a number of different types of schools, but there is a limited literature on research undertaken in all girls' independent schools. This research contributed to this gap by conducting the research in an independent selective school, complimenting previous work in this field. As highlighted in the literature

review, previous research has raised more questions than answers, demonstrating the need for further research into this area. There were also recommendations from Ofsted (2015b) for schools to meet the needs and stretch the more able, so schools need to think carefully about how this can be attained, and whether this can be achieved through organising curriculum subjects by ability groups.

Secondly, the Case Study approach allowed for more curriculum subjects to be focused upon when collecting research, as opposed to just looking at one curriculum subject area. This allowed for a unique insight to be gained from an individual pupil's experience in this one institution across a number of curriculum areas. There were both positive and negative aspects identified towards both ability grouping and mixed ability lessons. It was important to note the anxieties that were highlighted regarding the pressures being placed on the pupil's in the top set, and the anxieties about being moved down a set. However, some pupils suggested this pressure provided a level of motivation to ensure they continued to work at a level that was required, so perhaps this pressure could have had a positive effect for some pupils. With regard to mixed ability lessons the benefits of learning from each other was highlighted and how this environment created a relaxed environment. However, issues were raised with regard to struggling to keep up with the pace of lessons, or being bored waiting for others.

Thirdly, this research allowed for the findings to potentially impact the practices that took place in this Case Study school, and hopefully raised awareness of issues relating to ability grouping and mixed ability lessons in this one institution.

Finally, this Case Study has added to the existing body of knowledge and previous research that has taken place, findings have supported previous research with regard to having

identified the pressures experienced by pupils placed in top sets. As with previous research, conflicting findings were identified with regard to this pressure and the link it has with motivation, as pupils identified that this pressure, regardless of top or bottom set, could have both positive and negative effects towards their motivation, self-esteem and determination to succeed. This research also identified a liking for ability grouping with regard to working at a similar pace, which was significant as previous research has tended to only find positive experiences with pupils in the top sets. It was interesting to note the support that was identified for mixed ability groups with regard to the relaxed atmosphere that was created in this environment. This Case Study, both the research questions and the methods of data collection, allowed for insights into the experiences of pupils, both ability grouping and mixed ability groups with regard to motivation, in different curriculum subject areas. This was permitted by using two methods of data collection, as the questionnaires were supported by the more in depth focus groups.

This Case Study research has offered a unique insight into this particular type of school, an independent secondary girls' school. This Case Study approach allowed for access to a number of curriculum subject areas and teachers, as well as to the pupils, to gain an understanding of their thoughts, and an awareness of the practices that take place.

7.5 Further Research

Further research could be conducted into similar cases, for example in other all girls' independent secondary schools, to see if the results are similar to the findings here.

It was still clear that the results were inconclusive as to the best way to organise groupings for pupils, so further research will allow for additional insights into the practices and

workings of individual schools and how they utilise the practices of ability grouping and mixed ability teaching differently. Further research could also be conducted into different types of schools, to compare boys' selective schools, and comprehensive schools, both single sex and mixed to allow for a greater understanding into the practices of these schools.

Within the different schools, further research could be focused upon different curriculum subjects. As focusing on further curriculum subjects could give different experiences of pupils.

Future research could also benefit from undertaking a longitudinal study with the pupils that completed this research. A longitudinal study would be beneficial as it would be interesting to note whether the opinions that pupils have at this stage of their school career differ with age as they gain more experience, both of the school and with different curriculum subjects that utilise ability grouping or mixed ability teaching. A longitudinal study could also look at targeting different times of the academic year, as pupils could be affected by test or homework marks, or the topics being covered in the different curriculum lessons.

Further research could also have a different focus, which would allow a different perspective to be gained on ability grouping and mixed ability teaching. For example, the views of the teachers could be investigated; the views of parents could also be gained to gather a greater understanding of the experiences that pupils face; and also a focus on the academic progress of pupils.

Finally, to gain a greater understanding of this research area, further investigations could be carried out to find out more about the achievement of pupils, the challenges they face in lessons, and the notion of ability can be developed further.

7.6 Overall Summary and Conclusions

This chapter reflects the overall results and conclusions from this Case Study research, giving summaries for the overall findings, limitations that were identified, and suggestions for areas for improvements and further research.

This research has offered a unique insight into the practices that take place with regard to ability grouping and mixed ability grouping, in relation to individual pupils' experiences and effects on their motivation in an independent secondary girls' school. It adds to the body of existing knowledge, highlighting the conflicting views with both positive and negative opinions towards both ability grouping and mixed ability groups.

This research aimed to not only impact the practices that took place within this Case Study school, but also adding to existing knowledge, and offering suggestions that could be used at other similar institutions. This was achieved with the suggestions that have been outlined above, with regard to the recommendations that were outlined from the findings. It was therefore hoped that the findings would impact the practices that take place, and potentially update policies in place at this Case Study school.

Finally, it was suggested that when considering how pupils should be grouped a key factor to consider for all schools was to "...rigorously evaluate their provision in the light of the pupils' progress" (Ofsted, 2004). Despite the significant and interesting data that has been identified here, still further research is needed in this area to allow researchers and schools

to continue to gain an understanding of what environment is best suited for pupils. However, the results here can be used to inform schools, complement previous research that has been outlined in this thesis, and pave the way for future research.

References

Abraham, J. (2008) 'Pupils' perceptions of setting and beyond – a response to Hallam and Ireson ', *British Educational Research Journal,* 34(6), pp. 855-863.

Adams-Byers, J., Squiller Whitsell, S. and Moon, S.M. (2004) 'Gifted students' perceptions of the academic and social/emotional effects of homogenous and heterogeneous grouping', *Gifted Child Quarterly,* 48(1), pp. 7-20.

Ahmavaara, A. and Houston, D.M. (2007) 'The effects of selective schooling and self-concept on adolescents' academic aspiration: An examination of Dweck's self-theory', *British Journal of Educational Psychology,* 77(4), pp. 613-632.

Allan, S.D. (1991) 'Ability-grouping research reviews: What do they say about grouping and the gifted?', *Educational Leadership,* 48(6), pp. 60-65.

Ansalone, G. (2001) 'Schooling, tracking and inequality', *Journal of Children and Poverty,* 7(1), pp. 33-47.

Ansalone, G. and Ming, C. (2006) 'Programming students for academic success: The PLS an alternative to traditional tracking', *Educational Research Quarterly,* 29(3), pp. 3-10.

Araujo, M. (2007) 'Modernising the comprehensive principle: Selection, setting and the institutionalisation of educational failure', *British Journal of Sociology of Education,* 28(2), pp. 241-257.

Baines, E., Blatchford, P. and Kutnick, P. (2003) 'Changes in grouping practices over primary and secondary school', *International Journal of Educational Research,* 39(1), pp. 9-34.

Ball, S.J. (1981) *Beachside comprehensive: A case study of secondary schooling.* First edn. Cambridge: Cambridge University Press.

Ball, S.J., Bowe, R. and Gerwitz, S. (1996) 'School choice, social class and distinction: The realisation of social advantage in education', *Journal of Educational Policy,* 11(1), pp. 89-112.

Balls, E. (2009) *Your Child, your schools, our future: Building a 21st century schools system.* Surrey: Department for Children, Schools, and Families. Office of Public Sector Information.

Bandura, A. (1997) *Self-efficacy: The exercise of control.* First edn. New York: W. H. Freeman and Company.

Bandura, A. (1992) 'Exercise of personal agency through the self-efficacy mechanism', in Schwarzer, R. (ed.) *Self-efficacy: Thought control of action.* First edn. London: Hemisphere, pp. 3-38.

Bandura, A. (1986a) *Social Foundations of Thought and Action: A Social Cognitive Theory.* First edn. London: Prentice Hall.

Bandura, A. (1986b) 'Fearful expectations and avoidant actions as co-effects of perceived self-inefficacy', *American Psychologist,* 42(12), pp. 1389-1391.

Bandura, A. (1982) 'Self-efficacy: Toward a unifying theory of behavioural change', in Rosenberg, M. and Kaplan, H.B. (eds.) *Social Psychology of the self-concept.* First edn. Illinois: Harlan Davidson, pp. 38-49.

Bandura, A. and Jourden, F.J. (1991) 'Self-regulatory mechanisms governing the impact of social comparison on complex decision making', *Journal of Personality and Social Psychology,* 60(6), pp. 941-951.

Bandura, A. and Locke, E.A. (2003) 'Negative self-efficacy and goal effects revisited', *Journal of Applied Psychology,* 88(1), pp. 87-99.

Bandura, A. and Schunk, D.H. (1981) 'Cultivating competence, self-efficacy, and intrinsic interest through proximal self-motivation', *Journal of Personality and Social Psychology,* 41(3), pp. 586-598.

Barker Lunn, J.C. (1970) *Streaming in the primary school.* First edn. London: National Foundation for Educational Research.

Bassey, M. (2003) 'Case study research', in Swann, J. and Pratt, J. (eds.) *Educational research in practice: Making sense of methodology.* First edn. London: Continuum, pp. 111-124.

Bassey, M. (1999) *Case study research in educational settings.* First edn. Berkshire: Open University Press.

Benn, C. and Chitty, C. (1997) *Thirty years on: Is comprehensive education alive and well or struggling to survive?* First edn. London: Penguin Group.

Betts, J.R. and Shkolnik, J.L. (2000) 'The effects of ability grouping on student achievement and resource allocation in secondary schools', *Economics of Education Review,* 19(1), pp. 1-15.

Blunkett, D. (1998) *Secretary of State for Education and Skills. Education Reform Act. School Standards and Framework Act 1998.* London: The Stationary Office Bookshops.

Boaler, J. (2016) *Mathematical Mindsets.* First edn. San Francisco: Jossey-Bass.

Boaler, J. (1997a) 'When even the winners are losers: Evaluating the experiences of 'top set' students', *Journal of Curriculum Studies,* 29(2), pp. 165-182.

Boaler, J. (1997b) *Experiencing School Mathematics: Teaching, Styles, Sex and Setting.* First edn. Buckingham: Open University Press.

Boaler, J. (1997c) 'Setting social class and the survival of the quickest', *British Educational Research Journal,* 23(5), pp. 575-595.

Boaler, J. (1996) 'Learning to lose in the mathematics classroom: A critique of traditional schooling practices in the UK', *Qualitative Studies in Education,* 9(1), pp. 17-33.

Boaler, J., Wiliam, D. and Brown, M. (2000) 'Students' experiences of ability grouping – disaffection, polarisation and the construction of failure', *British Educational Research Journal,* 26(5), pp. 631-648.

Bogdan, R.C. and Biklen, S.K. (2006) *Qualitative Research for Education: An Introduction to Theories and Methods.* Fifth edn. Boston: Pearson.

Brady, M. and Koshy, V. (2014) 'Reflections on the implementation of the Gifted and Talented policy in England, 1999-2011', *Gifted Education International,* 30(3), pp. 254-262.

British Educational Research Association (2011) Ethical guidelines for educational research. Available at: https://www.bera.ac.uk/wp-content/uploads/2014/02/BERA-Ethical-Guidelines-2011.pdf?noredirect=1 (Accessed: August/20 2012).

Bremner, S. (2008) 'Some thoughts on teaching a mixed ability class', *Scottish Languages Review,* (18), pp. 1-10.

Broussard, S.C. and Garrison, M.E.B. (2004) 'The relationship between classroom motivation and academic achievement in elementary school aged children', *Family and Consumer Sciences Research Journal,* 33(2), pp. 106-120.

Brulles, D. and Winebrenner, S. (2012) 'Clustered for success', *Educational Leadership,* 69(5), pp. 41-45.

Bryman, A. (2008) *Social Research Methods.* First edn. Oxford: Oxford University Press.

Bryman, A. (2006) 'Integrating quantitative and qualitative research: How is it done?', *Qualitative Research,* 6(1), pp. 97-113.

Burris, C.C., Heubert, J.P. and Levin, H.M. (2006) 'Accelerating mathematics achievement using heterogeneous grouping', *American Educational Research Journal,* 43(1), pp. 105-136.

Cavan, S. (1977) 'Investigative social research: Individual and team field research', *American Journal of Sociology,* 83(3), pp. 809-811.

Charmaz, K. (2001) 'Qualitative Interviewing and Grounded Theory Analysis', in Gubrium, J.F. and Holstein, J.A. (eds.) *Handbook of Interview Research: Context and Method.* First edn. London: Sage Publications, pp. 275-294.

Cheung, C. and Rudowicz, E. (2003) 'Academic outcomes of ability grouping among junior high school students in Hong Kong', *Journal of Educational Research,* 96(4), pp. 241-254.

Chisaka, B.C. (2002) 'Ability grouping in Zimbabwe secondary schools: A qualitative analysis of perceptions of learners in low ability classes', *Evaluation and Research Education,* 16(1), pp. 19-33.

Chitty, C. (1992) *The Education System Transformed.* First edn. Manchester: Baseline Book Company.

Christians, C.G. (2005) 'Ethics and politics in qualitative research', in Denzin, N.K. and Lincoln, Y.S. (eds.) *The sage handbook of qualitative research.* Third edn. London: Sage Publications, pp. 139-164.

Coe, R.J. (2012) 'Effect size', in Arthur, J., Waring, M., Coe, R. and Hedges, L.V. (eds.) *Research methods and methodology in education.* First edn. London: Sage Publications, pp. 368-377.

Cohen, J. (1988) *Statistical power analysis for the behavioral sciences.* Second edn. New York: Lawrence Erlbaum Associates.

Cohen, L., Manion, L. and Morrison, K. (2011) *Research methods in education.* Seventh edn. Oxon: Routledge.

Creswell, J.W. (2015) *A concise introduction to mixed methods research.* First edn. London: Sage Publications.

Creswell, J.W. (2014) *Research Design. Qualitative, Quantitative, and Mixed Methods Approaches.* Fourth edn. London: Sage Publications.

Creswell, J.W. (2012) *Educational research: Planning, conducting, and evaluating quantitative and qualitative research.* Fourth edn. London: Pearson.

Creswell, J.W. (2011) 'Controversies in mixed methods research', in Denzin, N.K. and Lincoln, Y.S. (eds.) *The sage handbook of qualitative research.* Fourth edn. London: Sage Publications, pp. 269-283.

Crompton, R. (1998) *Class and Stratification: An Introduction to Current Debates.* First edn. Cambridge: Polity.

Danner, F.W. and Lonky, E. (1981) 'A cognitive-developmental approach to the effects of rewards on intrinsic motivation', *Child Development,* 52(3), pp. 1043-1052.

Davies, J., Hallam, S. and Ireson, J. (2003) 'Ability groupings in the primary school: Issues arising from practice', *Research Papers in Education,* 18(1), pp. 45-60.

de Leeuw, E. (2008) 'Self-Administered Questionnaires and Standardized Interviews', in Alasuutari, P., Bickman, L. and Brannen, J. (eds.) *The Sage Handbook of Social Research Methods.* First edn. London: Sage Publications, pp. 313-327.

Deci, E.L. (1971) 'Effects of externally mediated rewards on intrinsic motivation', *Journal of Personality and Social Psychology,* 18(1), pp. 105-115.

Deci, E.L. and Ryan, R.M. (1985) *Intrinsic motivation and self-determination in human behavior.* First edn. New York: Plenum Press.

Delamont, S. (2002) *Fieldwork in Educational Settings: Methods, pitfalls and perspectives.* First edn. London: Routledge.

Delamont, S. and Galton, M. (1986) *Inside the secondary classroom.* First edn. London: Routledge & Kegan Paul Ltd.

Denscombe, M. (2010) *The good research guide for small-scale research projects.* Fourth edn. Berkshire: Open University Press.

Denton, C. and Postlethwaite, K. (1984) 'The incidence and effective identification of pupils with high ability in comprehensive schools', *Oxford Review of Education,* 10(1), pp. 99-113.

Denzin, N.K. and Lincoln, Y.S. (2011) 'Epilogue', in Denzin, N.K. and Lincoln, Y.S. (eds.) *The sage handbook of qualitative research.* Fourth edn. London: Sage Publications, pp. 715-718.

Department for Children, Schools, and Families (2008) *Education and Skills Act 2008*. Available at: http://www.educationengland.org.uk/documents/act/2008-education-and-skills-act.pdf (Accessed: April/15 2015).

Department for Children, Schools, and Families (2008) I*dentifying gifted and talented learners – getting started.* Nottingham: DCSF Publications.

Department for Education (2014) *Michael Gove speaks about securing our children's future*. Available at: http://www.gov.uk/government/speeches/michael-gove-speaks-about-securing-our-childrens-future (Accessed: April/21 2015).

Department for Employment and Education (1997) *White paper: Excellence in schools*. Available at: http://www.educationengland.org.uk/documents/wp1997/excellence-in-schools.html (Accessed: May/10 2015).

Department for Employment and Education (1988) *Education Reform Act 1988*. Available at: http://www.legislation.gov.uk/ukpga/1988/40/contents (Accessed: January/21 2013).

Devine, D. (1993) 'A study of reading ability groups: Primary school children's experiences and views', *Irish Educational Studies,* 12(1), pp. 134-142.

Diener, C.I. and Dweck, C.S. (1980) 'An analysis of learned helplessness: II The processing of success', *Journal of Personality and Social Psychology,* 39(5), pp. 940-952.

Ding, W. and Lehrer, S.F. (2007) 'Do peers affect student achievement in China's secondary schools', *The Review of Economics and Statistics,* 89(2), pp. 300-321.

Dowling, P. and Brown, A. (2010) *Doing Research/Reading Research: Reintegrating Education.* First edn. Oxon: Routledge.

Dreeban, R. and Barr, R. (1988) 'Classroom composition and the design of instruction', *Sociology of Education,* 61(3), pp. 129-142.

Drever, E. (2003) *Using Semi-Structured Interviews in Small-Scale Research: A Teacher's Guide.* First edn. Glasgow: SCRE.

Duda, J.L. and Treasure, D.C. (2006) 'Motivational Processes and the Facilitation of Performance, Persistence, and Well-Being in Sport', in Williams, J.M. (ed.) *Applied Sport Psychology.* Fifth edn. London: McGraw-Hill, pp. 57-81.

Dunne, M., Humphreys, S., Dyson, A., Sebba, J., Gallannaugh, F. and Muijs, D. (2011) 'The teaching and learning of pupils in low-attainment sets', *The Curriculum Journal,* 22(4), pp. 485-513.

Dweck, C.S. (2006) *Mindset: The new psychology of success.* First edn. New York: Ballantine Books.

Dweck, C.S. (2000) *Self-theories: Their role in motivation, personality, and development.* First edn. Sussex: Taylor & Francis Group.

Dweck, C.S. (1986) 'Motivational processes affecting learning', *American Psychologist,* 41(10), pp. 1040-1048.

Dweck, C.S. (1975) 'The role of expectations and attributions in the alleviation of learned helplessness', *Journal of Personality and Social Psychology,* 31(4), pp. 674-685.

Eccles, J.S. (1983) 'Expectancies, values, and academic behaviors', in Spence, J.T. (ed.) *Achievement and achievement motives: Psychological and sociological approaches.* First edn. Hampshire: W. H. Freeman and Company, pp. 75-146.

Feldhusen, J.P. (1989) 'Synthesis of research on gifted youth', *Educational Leadership,* 46(6), pp. 6-11.

Feldhusen, J.P. and Moon, S.M. (1992) 'Grouping gifted students: Issues and concerns', *Gifted Child Quarterly,* 36(2), pp. 63-67.

Finley, M.K. (1984) 'Teachers and tracking in a comprehensive high school', *Sociology of Education,* 57(4), pp. 233-243.

Flyvbjerg, B. (2006) 'Five misunderstandings about case study research', *Qualitative Inquiry,* 12(2), pp. 219-245.

Fogelman, K. (1984) 'Problems in comparing examination attainment in selective and comprehensive secondary schools', *Oxford Review of Education,* 10(1), pp. 33-43.

Forgasz, H. (2010) 'Streaming for mathematics in Victorian secondary schools', *Australian Mathematics Teacher,* 66(1), pp. 31-40.

Fusch, P.I. and Ness, L.R. (2015) 'Are we there yet? Data saturation in qualitative research', *The Qualitative Report,* 20(9), pp. 1408-1416.

Gamoran, A. and Berends, M. (1987) 'The effects of stratification in secondary schools: Synthesis of survey and ethnographic research', *Review of Educational Research,* 57(4), pp. 415-435.

Gerring, J. (2007) *Case Study Research: Principles and Practice.* First edn. Cambridge: Cambridge University Press.

Gibbs, G.R. (2007) *Analyzing Qualitative Data.* First edn. London: Sage Publications.

Gibson, W.J. and Brown, A. (2009) *Working with Qualitative Data.* First edn. London: Sage Publications.

Gibson, W.J. and Brown, A. (2009) *Working with Qualitative Data.* First edn. London: Sage Publications.

Gillard, D. (2011) *Education in England: A brief history*. Available at: www.educationengland.org.uk/history (Accessed: April/13 2015).

Gillborn, D., and Youdell, D. (2000) *Rationing education: policy, practice, reform and equity.* First edn. Buckingham: Open University Press.

Glaesser, J. and Cooper, B. (2012) 'Educational achievement in selective and comprehensive local education authorities: A configurational analysis', *British Journal of Sociology of Education,* 33(2), pp. 223-244.

Glaser, B.G. and Strauss, A.L. (1967) *The discovery of grounded theory: Strategies for qualitative research.* First Edition edn. Chicago: Aldine.

Goldberg, M.D. and Cornell, D.G. (1998) 'The influence of intrinsic motivation and self-concept on academic achievement in second and third grade students', *Journal for the Education of the Gifted,* 21(2), pp. 179-205.

Goodwin, S.C. (1997) 'The benefits of homogenous grouping in Physical Education', *The Physical Educator,* 54(3), pp. 114-119.

Gould, S.J. (1996) *The mismeasure of man.* London: W. W. Norton and Company.

Gray, J., Jesson, D. and Jones, B. (1984) 'Predicating differences in examination results between local education authorities: Does school organisation matter?', *Oxford Review of Education,* 10(1), pp. 45-68.

Greene, M. (1994) 'Epistemology and educational research: The influence of recent approaches to knowledge', *Review of Research in Education,* 20(1), pp. 423-464.

Gregory, R.P. (1984) 'Streaming, setting and mixed ability grouping in primary and secondary schools: some research findings', *Educational Studies,* 10(3), pp. 209-226.

Guba, E. and Lincoln, Y. (1992) *Effective Evaluation: Improving the usefulness of evaluation results through responsive and naturalistic approaches.* Second edn. London: Jossey-Bass.

Hallam, S. and Deathe, K. (2002) 'Ability grouping: Year group differences in self-concept and attitudes of secondary school pupils', *Westminster Studies in Education,* 25(1), pp. 7-17.

Hallam, S. and Ireson, J. (2007) 'Secondary school pupils' satisfaction with their ability grouping placements', *British Educational Research Journal,* 33(1), pp. 27-45.

Hallam, S. and Ireson, J. (2003) 'Secondary school teachers' attitudes towards and beliefs about ability grouping', *British Journal of Educational Psychology,* 73(3), pp. 343-356.

Hallam, S., Ireson, J. and Davies, J. (2004a) 'Grouping practices in the primary schools: What influences change?', *British Educational Research Journal,* 30(1), pp. 117-140.

Hallam, S., Ireson, J. and Davies, J. (2004b) 'Primary pupils' experiences of different types of grouping in school', *British Educational Research Journal,* 30(4), pp. 515-533.

Hallam, S., Ireson, J. and Davies, J. (2002) *Effective pupil grouping in the primary school – a practical guide.* London: Fulton.

Hallam, S., Ireson, J., Lister, V. and Chaudhury, A. (2003) 'Ability Grouping Practices in the Primary School: A survey', *Educational Studies,* 29(1), pp. 69-83.

Hallam, S. and Parsons, S. (2013) 'Prevalence of streaming in UK primary schools: evidence from the Millennium Cohort Study', *British Educational Research Journal,* 39(3), pp. 514-544.

Hallam, S. and Parsons, S. (2012) 'The incidence and make up of ability grouped sets in the UK primary school ', *Research Papers in Education,* iFirst Article, pp. 1-28.

Hallam, S., Rogers, L. and Ireson, I. (2008) 'Ability grouping in the secondary school: Attitudes of teachers of practically based subjects', *International Journal of Research and Method in Education,* 31(3), pp. 181-192.

Hallam, S. and Toutounji, I. (1996) 'What do we know about grouping pupils by ability?', *Education Review,* 10(2), pp. 63-70.

Hallinan, M.T. (1994) 'Tracking: From theory to practice', *Sociology of Education,* 67(2), pp. 79-84.

Hammersley, M. (2012) 'Methodological paradigms in educational research. Available on-line at http://www.bera.ac.uk/researchers-resources/publications/methodological-paradigms-in-educational-research', *British Educational Research Journal Association on-line resource,* pp. 16th January 2016.

Hammersley, M. (1993) 'On the teacher as researcher', in Hammersley, M. (ed.) *Educational research: Current issues.* First edn. London: Paul Chapman Publishing Ltd, pp. 211-227.

Harlen, W. and Malcolm, H. (1997) *Setting and streaming: A research review.* Edinburgh: Scottish Council for Research in Education.

Harris, D.M. (2011) 'Curriculum differentiation and comprehensive school reform: Challenges in providing educational opportunity', *Educational Policy,* 25(5), pp. 844-884.

Hartley, J. (2004) 'Case study research', in Cassell, C. and Symon, G. (eds.) *Essential Guide to Qualitative Methods in Organizational Research.* First edn. London: Sage Publications, pp. 323.

Hatch, J.A. (2002) *Doing qualitative research in education settings.* First edn. New York: State University of New York Press.

Hill, M. (2005) 'Ethical considerations in researching children's experiences', in Greene, S. and Hogan, D. (eds.) *Researching children's experiences: Approaches and methods.* First edn. London: Sage Publications, pp. 253-272.

HM Treasury and The Rt Hon George Osborne MP (2015) *Spending Review and Autumn Statement 2015*. Available at: https://www.gov.uk/government/publications/spending-review-and-autumn-statement-2015-documents/spending-review-and-autumn-statement-2015 (Accessed: November/1 2015).

Hornby, G., Witte, C. and Mitchell, D. (2011) 'Policies and practices of ability grouping in New Zealand intermediate schools', *British Journal of Learning Support,* 26(3), pp. 92-96.

Huang, M. (2009) 'Classroom homogeneity and the distribution of student math performance: A country-level fixed-effect analysis', *Social Science Research,* 38(4), pp. 781-791.

Ireson, J., Clark, H. and Hallam, S. (2002) 'Constructing ability groups in the secondary schools: Issues in practice', *School Leadership and Management,* 22(2), pp. 163-176.

Ireson, J. and Hallam, S. (2009) 'Academic self-concepts in adolescence: Relations with achievement and ability grouping in schools', *Learning and Instruction,* 19(3), pp. 201-213.

Ireson, J. and Hallam, S. (2005) 'Pupils' liking for school: Ability grouping, self-concept and perceptions of teaching', *British Journal of Educational Psychology,* 75(2), pp. 297-311.

Ireson, J. and Hallam, S. (2001) *Ability Grouping in Education.* London: Paul Chapman Publishing.

Ireson, J. and Hallam, S. (1999) 'Raising standards: Is ability grouping the answer?', *Oxford Review of Education,* 25(3), pp. 343-358.

Ireson, J., Hallam, S., Hack, S., Clark, H. and Plewis, I. (2002) 'Ability grouping in English secondary schools: Effects on attainment in English, Mathematics and Science', *Educational Research and Evaluation,* 8(3), pp. 299-318.

Ireson, J., Hallam, S. and Hurley, C. (2005) 'What are the effects of ability grouping on GCSE attainment?', *British Educational Research Journal,* 31(4), pp. 443-458.

Ireson, J., Hallam, S. and Plewis, I. (2001) 'Ability grouping in secondary schools: Effects on pupils' self-concepts', *British Journal of Educational Psychology,* 71(2), pp. 315-326.

Isaksen, K.J. and Roper, S. (2009) 'Research with children and schools: A researcher's recipe for successful access', *International Journal of Market Research,* 52(3), pp. 303-318.

Jameson, F. (1991) *Postmodernism, or the Cultural Logic of Late Capitalism.* First edn. London: Verso.

Janesick, V. (1994) 'The dance of qualitative research design', in Denzin, N.K. and Lincoln, Y.S. (eds.) *Handbook of qualitative research.* First edn. London: Sage Publications, pp. 203-219.

Johnson, A. (1996) 'It's good to talk: the focus group and the sociological imagination', *Sociological Review,* 44(3), pp. 517-538.

Kamberelis, G. and Dimitriadis, G. (2005) 'Focus Groups: Strategic articulations of pedagogy, politics, and inquiry', in Denzin, N.K. and Lincoln, Y.S. (eds.) *The sage handbook of qualitative research.* Third edn. London: Sage Publications, pp. 887-907.

Kelly, A.V. (1980) *Curriculum context.* First edn. London: Harper & Row.

Kelly, A.V. (1974) *Teaching mixed ability classes: An individualized approach.* First edn. London: Harper & Row Ltd.

Kemp, S. and Watkins, D. (1996) 'Self-esteem and academic streaming in Hong Kong', *The Journal of Social Psychology,* 136(5), pp. 651-653.

Kim, Y. (2012) 'Implementing ability grouping in EFL contexts: Perceptions of teachers and students', *Language Teaching Research,* 16(3), pp. 289-315.

Kitzinger, J. and Barbour, R.S. (1999) 'Introduction: The challenge and promise of focus groups', in Barbour, R.S. and Kitzinger, J. (eds.) *Developing Focus Groups Research: Politics, Theory and Practice.* First edn. London: Sage Publications, pp. 1-20.

Koshy, V., Ernest, P. and Casey, R. (2009) 'Mathematically gifted and talented learners: theory and practice', *International Journal of Mathematical Education in Science and Technology,* 40(2), pp. 213-228.

Koshy, V. and Pinheiro-Torres, C. (2013) 'Are we being de-gifted, Miss? Primary school gifted and talented co-ordinators' responses to the Gifted and Talented Education Policy in England', *British Educational Research Journal,* 39(6), pp. 953-978.

Krefting, L. (1991) 'Rigor in qualitative research: The assessment of trustworthiness', *The American Journal of Occupational Therapy,* 45(3), pp. 214-222.

Krueger, R.A. (1998) *Analyzing and Reporting Focus Group Results.* First edn. London: Sage Publications.

Krueger, R.A. (1988) *Focus Groups: A practical guide for applied research.* First edn. London: Sage Publications.

Krueger, R.A. and Casey, M. (2000) *Focus Groups. A practical guide for applied research.* Third edn. London: Sage Publications.

Kulik, J.A. and Kulik, C.C. (1992) 'Meta-analytic findings on grouping programs', *Gifted Child Quarterly,* 36(2), pp. 73-77.

Kvale, S. (2007) *Doing Interviews.* First edn. London: Sage Publications.

Lacey, C. (1970) *Hightown Grammar: The school as a social system.* First edn. Manchester: The University Press.

LeCompte, M.D. and Goetz, J.P. (1982) 'Problems of reliability and validity in ethnographic research ', *Review of Educational Research,* 52(1), pp. 31-60.

Licht, B.G. and Dweck, C.S. (1984) 'Determinants of academic achievement: The interaction of children's achievement orientations with skill area', *Developmental Psychology,* 20(4), pp. 628-636.

Likert, R. (1932) 'A technique for the measurement of attitudes *Archives of Psychology*', *Archives of Psychology,* 1(140), pp. 1-55.

Linchevski, L. and 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,* 29(5), pp. 533-554.

Linden, T. (1992) *White Paper: Choice and Diversity.* London: Department for Education. Her Majesty's Stationery Office.

Lou, Y., Abrami, P.C., Spence, J.C., Poulsen, C., Chambers, B. and d'Apollonia, S. (1996) 'Within-class grouping: A meta-analysis', *Review of Educational Research,* 66(4), pp. 423-458.

Lu, L. (2012) 'The market phenomenon in Taiwanese junior high level education: behind the battles between streaming and mixed-ability grouping', *Comparative Education,* 48(3), pp. 367-383.

Lyle, S. (1999) 'An investigation of pupil perceptions of mixed-ability grouping to enhance literacy in children aged 9-10', *Educational Studies,* 25(3), pp. 283-296.

MacIntyre, H. and Ireson, J. (2002) 'Within-class ability grouping: placement of pupils in groups and self-concept', *British Educational Research Journal,* 28(2), pp. 249-263.

Marks, J., Cox, C. and Pomian-Srzednicki, M. (1983) *Standards in English Schools.* First edn. London: National Council for Educational Standards.

Marsh, H.W. (1991) 'Failure of high-ability high schools to deliver academic benefits commensurate with their students' ability levels', *American Educational Research Journal,* 28(2), pp. 445-480.

Marsh, H.W. (1987) 'The big fish little pond effect on academic self-concept', *Journal of Educational Psychology,* 79(3), pp. 280-295.

Marsh, H.W., Chessor, D., Craven, R. and Roche, L. (1995) 'The effects of gifted and talented programs on academic self-concept: The big fish strikes again', *American Educational Research Journal,* 32(2), pp. 285-319.

Marsh, H.W. and Hau, K. (2003) 'Big fish little pond effect on academic self-concept. A cross-cultural (26 country) test of the negative effects of academically selective schools', *American Psychologist,* 58(5), pp. 364-376.

Marsh, H.W., Hau, K. and Craven, R.G. (2004) 'The big-fish-little-pond effect stands up in scrutiny', *American Psychologist,* 59(4), pp. 269-271.

Marsh, H.W. and Parker, J.W. (1984) 'Determinants of student self-concept: Is it better to be a relatively large fish in a small pond even if you don't learn to swim as well?', *Journal of Personality and Social Psychology,* 47(1), pp. 213-231.

Marsh, H.W., Trautwein, U., Ludtke, O., Baumert, J. and Koller, O. (2007) 'The big-fish-little-pond effect: Persistent negative effects of selective high schools on self-concept after graduation', *American Educational Research Journal,* 44(3), pp. 631-669.

Marshall, C. and Rossman, G.B. (2006) *Designing qualitative research.* Fourth edn. London: Sage Publications.

Maslow, A. (1999) *Toward a psychology of being.* Third edn. New York: John Wiley & Sons.

Maslow, A. (1943) 'A theory of human motivation', *Psychological Review,* 50(3), pp. 370-396.

Mason, J. (2001) 'Linking qualitative and quantitative data analysis', in Bryman, A. and Burgess, R.G. (eds.) *Analyzing qualitative data.* First Edition edn. Oxon: Routledge, pp. 89-110.

McCelland, D.C. (1961) *The achieving society.* First edn. New York: The Free Press.

Meijnen, G.W. and Guldemond, H. (2002) 'Grouping in primary schools and reference processes', *Educational Research and Evaluation,* 8(3), pp. 229-248.

Merriam, S.B. (1998) *The Case Study Research in Education.* First edn. San Francisco: Jossey-Bass.

Mertens, D.M. (1998) *Research Methods in Education and Psychology: Integrating Diversity with Quantitative and Qualitative Approaches.* First edn. London: Sage Publications.

Miles, M.B. and Huberman, A.M. (1994) *An expanded sourcebook qualitative data analysis.* Second edn. London: Sage Publications.

Montgomery, D. (2010) 'Gifted and talented children with special educational needs: Lifting underachievement in dual and multiple exceptionalities', in Wallace, B., Leyden, S., Montgomery, D., Winstanley, C., Pomerantz, M. and Fitton, S. (eds.) *Raising the achievement of all pupils within an inclusive setting: Practical strategies for developing best practice.* First edn. Oxon: Routledge, pp. 68-100.

Morgan, D.L. (1998a) *The Focus Group Guidebook.* London: Sage Publications.

Morgan, D.L. (1998b) *Planning Focus Groups.* First edn. London: Sage Publications.

Muijs, D. and Dunne, M. (2010) 'Setting by ability – or is it? A quantitative study of determinant of set placement in English secondary schools', *Educational Research,* 52(4), pp. 391-407.

Muijs, D. and Reynolds, D. (2011) *Effective teaching. Evidence and practice.* London: Paul Chapman.

Newbold, D. (1977) *Ability grouping: The Banbury enquiry.* Slough: National Foundation for Educational Research Publishing Company Ltd.

O'Reilly, M. and Parker, N. (2013) 'Unsatisfactory saturation: A critical exploration of the notion of saturated sample sizes in qualitative research', *Qualitative Research,* 13(2), pp. 190-197.

Oakes, J. (2005) *Keeping Track: How schools structure inequality.* Yale: University Press.

Oakes, J. (1992) 'Can tracking research inform practice? Technical, normative, and political considerations', *Educational Researcher,* 21(4), pp. 12-21.

Oakes, J. and Guiton, G. (1995) 'Matchmaking: The dynamics of high school tracking decisions', *American Educational Research Journal,* 32(1), pp. 3-33.

Office for Standards in Education (2015a) *The Annual Report of Her Majesty's Chief Inspector of Education, Children's Services and Skills 2014/2015.* London: Ofsted Publications Centre.

Office for Standards in Education (2015b) *The most able students: an update on progress since June 2013.* London: Ofsted Publications Centre.

Office for Standards in Education (2009) *Gifted and talented pupils in schools.* London: Ofsted Publications Centre.

Office for Standards in Education (2008) *The Annual Report of Her Majesty's Chief Inspector of Education, Children's Services and Skills 2008/2009.* London: Ofsted Publications Centre.

Office for Standards in Education (2004) *Special educational needs and disability.* London: Ofsted Publications Centre.

Office for Standards in Education (2001) *Annual report of Her Majesty's Chief Inspector of Schools, Standards and Quality in Education.* London: Ofsted Publications Centre.

Office for Standards in Education (1998) *Annual report of Her Majesty's Chief Inspector of Schools. Standards and quality in Education 1997/98.* London: Ofsted Publications Centre.

Oliver, P. (2010) *The student's guide to research ethics.* Second edn. Berkshire: Open University Press.

Pallant, J. (2010) *SPSS survival manual.* Fourth edn. Berkshire: Open University Press.

Parker, A. and Tritter, J. (2006) 'Focus group method and methodology: current practice and recent debate', *International Journal of Research and Method in Education,* 29(1), pp. 23-37.

Paunonen, S.V. and Hong, R.Y. (2010) 'Self-efficacy and the prediction of domain-specific cognitive abilities', *Journal of Personality,* 78(1), pp. 339-360.

Peterson, R.A. (2000) *Constructing effective questionnaires.* First edn. Oxon: Routledge.

Plucker, J.A., Robinson, N.M., Greenspon, T.S., Feldhusen, J.F., McCoach, D.B. and Subotnik, R.F. (2004) 'It's not how the pond makes you feel, but rather how high you can jump', *American Psychologist,* 59(4), pp. 268-269.

Portelli, J. (2008) 'Researching a Secondary School in Malta', in Sikes, P. and Potts, A. (eds.) *Researching Education from the Inside: Investigations from Within.* First edn. Oxon: Routledge, pp. 80-94.

Preckel, F., Gotz, T. and Frenzel, A. (2010) 'Ability grouping of gifted students: Effects on academic self-concept and boredom', *British Journal of Educational Psychology,* 80(3), pp. 451-472.

Punch, K.F. (2009) *Introduction to research methods in education.* First edn. London: Sage Publications.

Punch, S. (2002) 'Research with children: The same or different from research with adults?', *Childhood,* 9(3), pp. 321-341.

Rapley, T. (2004) 'Interviews', in Seale, C., Gobo, G., Gubrium, J.F. and Silverman, D. (eds.) *Qualitative Research Practice.* First edn. London: Sage Publications, pp. 15-33.

Reay, D. (1998) *Class Work: Mothers' involvement in children's schooling.* First edn. London: University College Press.

Reay, D. and Ball, S.J. (1997) 'Spoilt for choice: The working classes and educational markets', *Oxford Review of Education,* 23(1), pp. 89-101.

Rees, D.I., Brewer, D.J. and Argys, L.M. (2000) 'How should we measure the effect of ability grouping on student performance?', *Economics of Education Review,* 19(1), pp. 17-20.

Remenyi, D. (2012) *Case study research: The quick guide series.* First edn. Reading: Academic Publishing International.

Reuman, D.A. (1989) 'How social comparison mediates the relation between ability-grouping practices and students' achievement expectancies in mathematics', *Journal of Educational Psychology,* 81(2), pp. 178-189.

Robson, C. (2011) *Real World Research.* Third edn. Sussex: John Wiley & Sons Ltd.

Rogers, C.R., Stevens, B., Gendlin, E.T., Shlien, J.M. and Van Dusen, W. (1967) *Person to person: The problem of being human: A new trend in psychology.* First edn. California: Real People Press.

Scholz, U., Dona, B.G., Sud, S. and Schwarzer, R. (2002) 'Is general self-efficacy a universal construct? Psychometrics findings from 25 countries', *European Journal of Psychological Assessment,* 18(4), pp. 242-251.

Schunk, D.H. and Parajes, F. (2005) 'Competence Perceptions and Academic Functioning', in Elliot, A.J. and Dweck, C.S. (eds.) *Handbook of Competence and Motivation.* First edn. London: The Guildford Press, pp. 84-104.

Scott, D. (1998) 'Methods and data in educational research', in Scott, D., & Usher, R. (ed.) *Understanding Educational Research.* First edn. London: Routledge, pp. 52-73.

Scott, D., & Usher, R. (2011) *Researching Education: Data methods and theory in educational enquiry.* Second edn. London: Continuum International Publishing Group.

Scott, D., & Usher, R. (1999) *Researching Education: Data, methods and theory in educational enquiry.* First edn. London: Cassell.

Sharp, P. and Dunford, J. (1990) *The Education System in England and Wales.* First edn. London: Longman Group UK.

Shepherd, J. (2012) 'Dividing younger pupils by ability can entrench disadvantaged, study finds', *The Guardian, Available at:* http://www.theguardian.com/education/2012/feb/09/dividing-pupils-ability-entrench-disadvantage (Accessed: February/1 2013).

Silverman, D. (2006) *Interpreting qualitative data.* Third edn. London: Sage Publications.

Skeggs, B. (1997) *Formations of Class and Gender: Becoming Respectable.* First edn. London: Sage Publications.

Slavin, R.E. (1990) 'Achievement effects of ability grouping in secondary schools: A best-evidence synthesis', *Review of Educational Research,* 60(3), pp. 471-499.

Smith, C.M.M. and Sutherland, M.J. (2006) 'Setting or mixed ability? Pupils' views of the organisational arrangement in their school', *Journal of Research in Special Educational Needs,* 6(2), pp. 69-75.

Smith, C.M.M. and Sutherland, M.J. (2003) 'Setting or mixed ability? Teachers' views of the organisation of pupils for learning', *Journal of Research in Special Educational Needs,* 3(3), pp. 141-146.

Sorensen, A.B. (1970) 'Organizational differentiation of students and educational opportunity', *Sociology of Education,* 43(4), pp. 355-376.

Stake, R.E. (2000) 'Case studies', in Denzin, N.K. and Lincoln, Y.S. (eds.) *Handbook of qualitative research.* Second edn. London: Sage, pp. 435-454.

Stake, R.E. (1995) *The art of case study research.* First edn. London: Sage Publications.

Strauss, A. and Corbin, J. (1990) *Basics of Qualitative Research Grounded Theory Procedures and Techniques.* First edn. London: Sage Publications.

Taylor, N. (1993) 'Ability grouping and its effect on pupils behaviour: A case study of a Midlands comprehensive school', *Education Today,* 43(2), pp. 14-17.

Thijs, J., Verkuyten, M. and Helmond, P. (2010) 'A further examination of the Big-Fish-Little-Pond effect: Perceived position in class, class size, and gender comparisons', *Sociology of Education,* 83(4), pp. 333-345.

Thomas, J.R. and Nelson, J.K. (2001) *Research Methods in Physical Activity.* Fourth edn. Leeds: Human Kinetics.

Thomas, J.R., Nelson, J.K. and Silverman, S.J. (2011) *Research methods in physical activity.* Sixth edn. Champaign: Human Kinetics.

Tibbenham, A., Essen, J. and Fogelman, K. (1978) 'Ability grouping and school characteristics', *British Journal of Educational Studies,* 26(1), pp. 8-23.

Troyna, B. and Siraj-Blatchford, I. (1993) 'Providing support or denying access? The experiences of students designated as ESL and SN in a multi-ethnic secondary school', *Educational Review,* 45(1), pp. 3-11.

Usher, R. (1996) 'A critique of the neglected epistemological assumptions of educational research', in Scott, D., & Usher, R. (ed.) *Understanding educational research.* First edn. London: Routledge, pp. 9-9-32.

Van Houtte, M., Demanet, J. and Stevens, P. (2012) 'Self-esteem of academic and vocational students: Does within-school tracking sharpen the difference?', *Acta Sociologica,* 55(1), pp. 73-89.

Vaughn, S., Schumm, J.S. and Sinagub, J. (1996) *Focus Group Interviews in Education and Psychology.* First edn. London: Sage Publications.

Venkatakrishnan, H. and Wiliam, D. (2003) 'Tracking and mixed-ability grouping in secondary school mathematics classrooms: A case study', *British Educational Research Journal,* 29(2), pp. 189-204.

Verma, G.K. and Mallick, K. (1999) *Researching education: Perspectives and techniques.* First edn. London: Falmer Press.

Ward, H. (2005) 'Dfes study fails to give full support to setting by ability'. The TES, Available at http://www.tes.com/article.aspx?storycode=2153630 (Accessed: March/16 2012).

Warren, C.A.B. (2001) 'Qualitative interviewing', in Gubrium, J.F. and Holstein, J.A. (eds.) *Handbook of Interview Research: Context and Method.* First edn. London: Sage Publications, pp. 83-201.

Weiner, B. (1985) 'An attributional theory of achievement motivation and emotion', *Psychological Review,* 92(4), pp. 548-573.

Wellington, J. (2000) *Educational research: Contemporary issues and practical approaches.* London: Continuum.

Wigfield, A. (1994) 'Expectancy-value theory of achievement motivation: A developmental perspective', *Educational Psychology Review,* 6(1), pp. 49-78.

Wigfield, A. and Eccles, J.S. (2000) 'Expectancy-value theory of achievement motivation', *Contemporary Educational Psychology,* 25(1), pp. 68-81.

Wigfield, A. and Eccles, J.S. (1992) 'The development of achievement task values: A theoretical analysis', *Developmental Review,* 12(3), pp. 265-310.

Wiliam, D. and 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,* 30(2), pp. 279-293.

Winstanley, C. (2010) 'Providing challenging opportunities in the classroom', in Wallace, B., Leyden, S., Montgomery, D., Winstanley, C., Pomerantz, M. and Fitton, S. (eds.) *Raising the achievement of all pupils within an inclusive setting: Practical strategies for developing best practice.* First edn. Oxon: Routledge, pp. 101-130.

Wolcott, H.F. (1995) *The art of fieldwork.* First edn. London: Sage Publications.

Woods, P. (2006) *Successful writing for qualitative researchers.* Second edn. Abingdon Oxon: Routledge.

Worthy, J. (2010) 'Only the names have been changed: Ability grouping revisited', *Urban Review,* 42(4), pp. 271-295.

Yin, R.K. (2009) *Case Study Research: Design and Methods.* Fourth edn. London: Sage Publications.

Yin, R.K. (2003) *Case Study Research: Design and Methods.* Third edn. London: Sage Publications.

Yin, R.K. (1994) 'Discovering the future of the case study method in evaluation research', *Evaluation Practice,* 15(3), pp. 283-290.

Yin, R.K. (1981) 'The case study crisis: Some answers', *Administrative Science Quarterly,* 26(1), pp. 58-65.

Yun Dai, D. (2011) 'A comparison of gender differences in self-concept and motivation between high-ability and average Chinese adolescents', *The Journal of Secondary Gifted Education,* 13(1), pp. 22-32.

Zhang, Y., Chen, D. and Wang, W. (2014) 'The heterogeneous effects of ability grouping on national college entrance exam performance – evidence from a large city in china', *International Journal of Educational Development,* 39(1), pp. 80-91.

The school takes very seriously its commitment to educate every girl who is able to take up a place, and to meet the learning needs of all through a balanced, stretching and stimulating curriculum which is accessible to all, whatever their learning profile and needs.

We aim to treat each girl as an individual with a unique profile of talents, strengths and weaknesses, of interests, aptitudes and preferences. We aim to espouse teaching methodologies which enable these profiles to be accommodated in ways which vary from the structural (e.g. ability divisions) to the subtle (e.g. question types), enabling the strongest students to be stretched and the weaker ones to be supported, in order for all to reach their potential in all areas of the curriculum.

We consider all students at the school to be gifted and talented, although all are not equally talented in all spheres. At the same time we recognise that in any class there will be a range of abilities and there will also be variation between abilities at different tasks. Teachers should be willing to explore ways of minimising and substituting tasks for students whose learning profiles make these tasks unproductive or unduly onerous, for example allowing an alternative response format for those who struggle to complete extensive written tasks. Suggestions for ways of reducing the burden for such students are provided by the Individual Learning Coordinator and are available in the Staff handbook.

The Individual Learning Coordinator, who holds a qualification in teaching children with Specific Learning Difficulties, works with teaching colleagues to ensure that provision for such students is appropriately targeted. This may be through the medium of whole-school, departmental or student-focused INSET or through individual conversation. However, much responsibility in this respect is devolved onto departments and individual subject staff are expected to make reasonable adjustments for girls' learning needs and, to a lesser extent, preferences.

The Individual Learning Coordinator maintains a list of pupils with individual learning needs which all teachers are required to consult at the beginning of each academic year. This list is available through iSAMS and an updated list is emailed to all staff as a text document at the beginning of each term. Each girl's entry gives a summary of her principal difficulties; where appropriate there will be a hyperlink to more detailed information about the pupil's difficulties and strategies to help her to overcome them. Updates are regularly made and all relevant teachers are notified of findings after an assessment.

Appendix Two – School Curriculum Policy (page 2)

We offer a broad and balanced curriculum, which provides continuity and progression and fosters moral, cultural, aesthetic and physical development. The curriculum has been devised to be appropriate to girls' ages, abilities and aptitudes, in order to foster talents and fulfil potential. We expect girls to take responsibility for their own work and to be willing to take advantage of the intellectual challenges which are offered to them; we encourage girls to question rather than to accept the received wisdom without thought. Our aim, as we deliver the curriculum, is that the girls will become independent thinkers and develop into lifelong learners, and that they will leave school as informed, cultured, civilised and skilled young people, prepared for higher education, the workplace and the challenge of adult life.

Only when girls are happy and secure can meaningful and productive learning take place, so we recognise the importance of strong pastoral support; we take a keen interest in each girl's learning and development as she progresses through the school. Careers advice and guidance about subject choices, higher education courses and the world of work is vital.

The breadth of the curriculum, up to school leaving age, gives girls experience in linguistic, mathematical, scientific, technological, human and social education, physical and aesthetic and creative education. Through these subject areas, girls will acquire and develop skills in speaking and listening, literacy and numeracy to a high standard.

The curriculum is designed to be inclusive, to allow for different learning styles and prior learning experiences, but at the same time to ensure that there is a match between each girl and the tasks she is asked to perform. Subject matter is designed to be appropriate for the ages and aptitudes of all girls, including those with specific learning difficulties. Schemes of work include differentiated activities, girls are taught in ability sets in Mathematics (LIV – UV), French (LIV, UIV) and Science (LV and UV); they are also given additional individual support by their teachers as and when this is required.

All girls have the opportunity to learn, develop and make progress through access to:

- a broad and balanced curriculum
- equitable access to all curriculum areas regardless of ability
- a teaching and learning approach which embodies at its heart the principles of enabling each girl to have and fulfil the highest possible expectations of herself, and which encourages independent thinking and learning (see Learning and Teaching Policy)
- flexibility of teaching to allow for different learning needs
- support from the Individual Learning Co-ordinator in order to assess specific learning difficulties and offer any special study support required at any stage of their school career.
- regular, constructive feedback on progress to girls and their parents with challenging and attainable targets for improvement (see Assessment Policy)
- a coherent programme of personal, social and health education including citizenship, sex education and the development of attitudes that lead to a healthy life-style (see Spiritual, Moral, Social and Cultural Development Policy)
- wide-ranging opportunities, both within the curriculum and as extra-curricular activities, for girls to be involved in creative and performing arts
- opportunities for cross-curricular work to encourage teamwork as well as independent thinking and learning
- a diverse range of extra-curricular opportunities which enrich and extend the school curriculum, help girls to develop a sense of responsibility and raise self-esteem
- higher education and careers advice, and opportunities for work-related learning
- opportunities for girls to serve their community through voluntary work and outreach

3 ARRANGEMENTS FOR STUDENTS

3.1 DIVISIONING AND GROUPING

Year 7 are taught in their forms.

Years 8, 9 and 11 are divided into 6 divisions and have 3 lessons a week. For 2012/3, year 10 will be divided into 7 divisions.

A girl's division at the end of year 7, 8 and 9 is decided upon as a result of her performance throughout the year. Reference may also be made to the MidYIS data.

Consideration of:

- speed of working
- ability to pick up new ideas
- extra assistance needed
- quality of homework and classwork
- test and examination marks

all form part of this decision. The girls are generally told their divisions at the beginning of the Autumn term for year 8 but at the end of the summer for other years.

As a girl progresses through the school she may need or request a change of division. In the latter case it must, of course, meet with our approval if action is to be taken. Most moves will take place at the beginning of the school year, the decisions having been made at the end of the previous one, or around the time of the mid-year tests. It is important that girls do not perceive this as divisioning decided upon according to results of tests, and it may be wise to discuss possible moves, particularly possible demotions with girls before such tests.

With the exception of new girls it is on the whole undesirable to make division changes once they are in year 10.

By year 10, divisions are working at differing paces and it is not always appropriate to test across the year group. Year 10 papers should as far as possible be set across the year with the exception of Division 1. However, it is undesirable that either a hard-working weaker pupil should receive a demoralising mark or that an able pupil is insufficiently challenged. Papers may therefore share a common core, but also accommodate the needs of particular divisions.

Appendix Four – Questionnaire from Institutional Focus Study

Year Group	
Subject	
Set	

The following questions require you to read each statement, and respond with regard to your thoughts and feelings about this Maths lesson only. There are no right or wrong answers. If there is anything that you do not feel is relevant to you, then you can tick the box at the end (Not Applicable).

Think carefully about each question, and use the following scale to respond to the statements below:
1 – strongly agree
2 – agree
3 – undecided
4 – disagree
5 – strongly disagree

	Strongly Agree				Strongly Disagree	N/A
1) I feel confident in this Maths lesson	1	2	3	4	5	
2) I enjoy my Maths lessons	1	2	3	4	5	
3) I feel challenged and stretched in these lessons	1	2	3	4	5	
4) I worry that I am not able to keep up with others in the lesson	1	2	3	4	5	
5) I believe that the reason I am in this set is only because of my end of year exam result	1	2	3	4	5	
6) I enjoy being able to work with my friends in lessons	1	2	3	4	5	
7) I wish that all lessons were taught in mixed ability groupings (e.g. in form groups)	1	2	3	4	5	
8) I prefer the challenge of being placed in a set	1	2	3	4	5	
9) I prefer to not have my friends in lessons so that I do not become distracted	1	2	3	4	5	
10) I am happy with the set that I have been placed in for this subject	1	2	3	4	5	
11) I am nervous that I will not be able to meet the demands of this subject	1	2	3	4	5	

Thank you for taking the time to complete this questionnaire.

Year Group	
Subject	

The following questions require you to read each statement, and respond with regard to your thoughts and feelings about this Philosophy and Religion lesson only. There are no right or wrong answers. If there is anything that you do not feel is relevant to you, then you can tick the box at the end (Not Applicable).

Think carefully about each question, and use the following scale to respond to the statements below:
1 – strongly agree
2 – agree
3 – undecided
4 – disagree
5 – strongly disagree

	Strongly Agree				Strongly Disagree	N/A
1) I feel confident in this Philosophy and Religion lesson	1	2	3	4	5	
2) I enjoy my Philosophy and Religion lessons	1	2	3	4	5	
3) I feel challenged and stretched in these lessons	1	2	3	4	5	
4) I worry that I am not able to keep up with others in the lesson	1	2	3	4	5	
5) I like the fact that in this lesson I do not have to worry about which set I am in	1	2	3	4	5	
6) I enjoy being able to work with my friends in lessons	1	2	3	4	5	
7) I wish that all lessons were taught in mixed ability groupings (e.g. in form groups)	1	2	3	4	5	
8) I prefer the challenge of being placed in a set	1	2	3	4	5	
9) I prefer to not have my friends in lessons so that I do not become distracted	1	2	3	4	5	
10) I am happy with how the group has been organised for this subject	1	2	3	4	5	
11) I am nervous that I will not be able to meet the demands of this subject	1	2	3	4	5	

Thank you for taking the time to complete this questionnaire.

Set 1

Appendix 5 – Sample of outputs from SPPS from IFS

T-Test

[DataSet1] F:\EdD\IFS\Questionnaire\Set Comparisons\Set 1.sav

Group Statistics

	Year	N	Mean	Std. Deviation	Std. Error Mean
PhilosophyQ1	Lower Fourth	14	1.5714	.51355	.13725
	Upper Fourth	19	1.8421	.95819	.21982
PhilosophyQ2	Lower Fourth	14	1.4286	.85163	.22761
	Upper Fourth	19	1.8421	.95819	.21982
PhilosophyQ3	Lower Fourth	14	2.0000	.78446	.20966
	Upper Fourth	19	2.4211	1.01739	.23341
PhilosophyQ4	Lower Fourth	14	4.2857	.91387	.24424
	Upper Fourth	19	4.2632	.56195	.12892
PhilosophyQ5	Lower Fourth	14	1.5714	.75593	.20203
	Upper Fourth	19	2.9474	1.22355	.28070
PhilosophyQ6	Lower Fourth	14	1.4286	.93761	.25059
	Upper Fourth	19	1.4211	.60698	.13925
PhilosophyQ7	Lower Fourth	14	3.0000	.87706	.23440
	Upper Fourth	19	4.0526	1.07877	.24749
PhilosophyQ8	Lower Fourth	14	2.4286	1.01635	.27163
	Upper Fourth	19	2.0526	1.02598	.23538
PhilosophyQ9	Lower Fourth	14	3.5000	.94054	.25137
	Upper Fourth	19	3.5789	1.01739	.23341
PhilosophyQ10	Lower Fourth	14	1.3571	.63332	.16926
	Upper Fourth	19	2.4211	1.26121	.28934
PhilosophyQ11	Lower Fourth	14	4.5714	.75593	.20203
	Upper Fourth	19	4.2105	.78733	.18063
MathsQ1	Lower Fourth	14	1.7857	.57893	.15473
	Upper Fourth	19	2.0526	.84811	.19457
MathsQ2	Lower Fourth	14	2.0000	1.03775	.27735
	Upper Fourth	19	1.7895	.71328	.16364
MathsQ3	Lower Fourth	14	1.5000	.65044	.17384
	Upper Fourth	19	1.6316	.76089	.17456
MathsQ4	Lower Fourth	14	3.6429	1.44686	.38669
	Upper Fourth	19	3.3158	1.41628	.32492
MathsQ5	Lower Fourth	14	3.7857	1.05090	.28087
	Upper Fourth	19	4.0000	1.00000	.22942
MathsQ6	Lower Fourth	14	1.4286	.75593	.20203
	Upper Fourth	19	1.1579	.37463	.08595
MathsQ7	Lower Fourth	14	3.2143	1.25137	.33444
	Upper Fourth	19	4.1053	1.10024	.25241

Group Statistics

	Year	N	Mean	Std. Deviation	Std. Error Mean
MathsQ8	Lower Fourth	14	2.0000	1.03775	.27735
	Upper Fourth	19	1.5263	.69669	.15983
MathsQ9	Lower Fourth	14	3.5000	.94054	.25137
	Upper Fourth	19	3.5789	1.01739	.23341
MathsQ10	Lower Fourth	14	1.1429	.36314	.09705
	Upper Fourth	19	1.3684	.49559	.11370
MathsQ11	Lower Fourth	14	3.3571	1.54955	.41413
	Upper Fourth	19	3.3684	1.21154	.27795

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means	
		F	Sig.	t	df
PhilosophyQ1	Equal variances assumed	.460	.503	-.958	3
	Equal variances not assumed		✓	-1.044	28.725
PhilosophyQ2	Equal variances assumed	.210	.650	-1.283	3
	Equal variances not assumed		✓	-1.307	29.823
PhilosophyQ3	Equal variances assumed	4.807	.036	-1.290	3
	Equal variances not assumed		✗	-1.342	30.906
PhilosophyQ4	Equal variances assumed	2.930	.097	.088	3
	Equal variances not assumed		✓	.082	20.125
PhilosophyQ5	Equal variances assumed	1.359	.253	-3.710	3
	Equal variances not assumed		✓	-3.978	30.242
PhilosophyQ6	Equal variances assumed	.791	.381	.028	3
	Equal variances not assumed		✓	.026	20.834
PhilosophyQ7	Equal variances assumed	.896	.351	-2.991	3
	Equal variances not assumed		✓	-3.088	30.640
PhilosophyQ8	Equal variances assumed	.437	.514	1.044	3
	Equal variances not assumed		✓	1.046	28.320

✓ = equal variances assumed

✗ = equal variances not assumed

Focus Group Questions

1) Are you aware which subjects in your year group are organised by ability?
2) Do you feel there is opportunity for movement between sets?
    a. How do you feel about end of term exams – why do you think these are used?
3) Do you prefer to be taught in mixed ability groups (e.g. in form groups)?
    a. Why
    b. Have you experienced a variety of teaching, maybe from your previous school?
4) How would you describe your feelings when discussing with friends/family what sets you are in?
5) How do you refer to your sets when discussing this topic with friends? e.g. top set/bottom set, set 1/set 2/set 3
6) Do you like the fact that which set you are in is mentioned on your report?
    a. Is it necessary?
7) How do you refer to lessons when you are taught in mixed ability groups?
8) How do you feel about being in a top set? / How do you feel about being in a middle set? / How do you feel about being in a bottom set?
9) Are you aware of what sets your friends are in?
10) How do you feel about the numbers of girls in your group?
    a. Is there a large number/small number in your view?
11) How would you describe the sort of work you do during lessons? e.g. small tasks/work sheets, projects in groups, work from text books, copying from board
    a. There might be a variety, so get participants to mention as many as possible

Positive towards ability grouping / mixed ability grouping

Negative towards ability grouping / mixed ability grouping

Appendix Seven – Transcript from IFS

LIV Focus Group (Middle Set Maths) – 7

4 participants – Tuesday 8th May 9.35am (period 2) Lasted 7 minutes 36 seconds

MR – Thank you all for agreeing to do this. I will ask you a few questions and please answer as best you can, do not worry if you do not feel able to answer any questions.

MR – Are you aware what subjects in your year group are organised by ability?

All – yes

Wendy – Maths and French... and I think Science next year

MR – Ok, in those 2 subjects that are organised by ability do you feel that there is much movement between the sets, either up or down?

Abbie – yes, because I moved up a set

Wendy – I'm not sure really...

Gabby – I know some girls in my set who have moved

MR – Ok was there a particular time when these movements happened, or can it happen at any time?

Marie – I moved sort of after an exam, so I think it is sort of yeah...

Wendy – like if you don't get one erm topic, they don't move you straight down they see how you do on the next one

Abbie – yeah I moved over half term I think, so when we came back I went into a different set

MR – From your previous schools have you experienced ability setting, or is it just since coming to Godolphin?

Wendy and Gabby – just since Godolphin

Marie – I had...at my old school we were set in Maths and English...

Abbie – only here...

MR – do you prefer to be taught in mixed ability groups, or do you like being in ability sets?

Abbie – I think sets for some subjects, because Maths is really good in sets and so is French. But like English I think is fine in mixed

Wendy – sometimes mixed is easier because if you are like finding it difficult for like one subject and everyone is getting it, because this is what I felt like a bit for Maths and erm... like I think like in some other subjects like Maths it is good because you have like certain people at like certain abilities but ... certain subjects like Science is good to keep in mixed ability groups.

MR – how would you describe your feelings when you discuss with friends and family which set you are in? Does it bother you?

Wendy – no, I don't mind

Gabby – no

Abbie – no not really

MR – how do you refer to your sets when you discuss them?

Abbie – I say like set 1 or set 2

Gabby – yeah, well our set is like the average, so I might say the average set

MR – Ok, when you get your report do you like the fact that it has what set you are in? Do you think this is necessary?

Wendy – I don't really mind

Marie – I don't really notice it

Abbie – I don't think it's necessary but...

Wendy – yeah I don't think it is necessary... but I don't really care it doesn't really affect me

Gabby – yeah...

MR – Ok, how do you refer to lessons when you are taught in mixed ability groups? Is it just by the subject?

Wendy – just like a normal lesson

Abbie – well like if my mum says is it a set or with your class, I just say with my class...or just with or not a set, because in Science I think we are set in alphabetical order from like all four classes

Wendy – I also think that mixed ability is good as well because if you are very confident at something then you have got other people as well, whereas like I said before in Maths if you are not confident in something you feel like everyone is getting it and you are the only person that sometimes happen... but the teachers are really good so I think they like help you explain it really quickly so...

MR – how do you feel about being in the middle set for Maths?

Wendy – I like the middle set

Marie – me too

Abbie – I think set 3 is good because you don't feel stupid but equally you don't feel too pressured

Gabby – like it's not too fast and not too slow, you are all equal

Wendy – well like some people don't mind if they are in the like the bottom set, because like they... it doesn't make any difference because the set is right for your ability... it doesn't really matter it's just how you learn

MR – are you aware what sets your friends are in?

All – yeah

Wendy – pretty much

MR – Ok, how do you feel about the number of girls that are in your group? Let's say Maths for example?

Marie – I think they are smaller than our usual classes, which I think is really good...

Gabby – yeah but set 1 has loads more than a regular class, whereas set 5 has like 10 people in which I think is good...

Abbie – yeah that is quite good because like set 5... not being mean but they need more help than... so I think that's why it is quite good in set 3 because we have about 22 which is quite good

Gabby – yeah it is quite in between...

MR – how would you describe the sort of work you do during lessons? If you were to compare lets say English and Philosophy & Religion or to Science, is there lots of textbooks, worksheets, pair work, group work, projects?

Marie – in maths we just work from textbooks...

Abby – actually at Godolphin we hardly ever do group work, apart from in like PE or drama or Music

Gabby – we do quite a lot of group work in Geography

Wendy – but for me I like find it easier if I work with other people

Marie – our teacher in maths will quite often just set us an exercise from the text book and tell us to work through it in pairs

Abbie – yeah we do that a lot actually, we'll work through problems in pairs or small groups

MR – well that's it, perfect thank you very much.

Appendix Eight – Consent Letter

1st September 2011

Dear Parents,

I am currently undertaking research in order to complete a Doctorate in Education. My research interest is the effects and practices of ability setting and mixed ability groupings in secondary education.

I am writing to gain consent from you for your daughter to participate in a study that I am undertaking at the school.

It would require your daughter completing a questionnaire, and possibly taking part in a group interview with me. During this research your daughter would be free to withdraw at any time, without any prejudice or having to give a reason.

Your daughter would remain anonymous and would only be identified in the work as a number or pseudonym. Taking part in this research is voluntary, it is not compulsory to take part and she is free to withdraw at any time. All of the research would take place during school time.

When the research is complete I would be happy to share with you my final thesis and the results which I find.

I would be grateful if you could complete the reply slip below and return to me by _____.

If you have any questions regarding this then please do not hesitate to contact me at any time and I would be happy to explain the research further to you.

Yours sincerely

Maddie Row

REPLY SLIP

Daughter's name: ..... Form: .....

I consent for my daughter to take part in this research.

Parent's Signature: ..... Date: .....

Return to M Row by _____

Appendix Nine – Letter of Consent sent to parents

DECLARATION OF INFORMED CONSENT

I give my formal consent to participate in this study which examines thoughts and experiences of ability setting within a secondary school. I consent to publication of study results so long as the information is anonymous and disguised so that I cannot be identified. I further understand that although a record will be kept of my having participated in the study, data collected from my participation will be identified by number only.

I have been informed that my participation in this study will involve me filling in a questionnaire that measures my thoughts and experiences on ability setting.

I have been informed that there are no known expected discomforts or risks involved in my participation in this study. I will simply be filling in a questionnaire, nothing more.

I have been informed that there are no "disguised" procedures in this study. All procedures can be taken at face value.

I have been informed that the investigators will gladly answer any questions regarding the procedures or purpose of the study when the questionnaires have been completed and returned.

I have been informed that I am free to withdraw from the study at any time without any kind of penalty.

Concerns about any aspects of this study can be referred to Maddie Row, Professor Valsa Koshy, or Dr Rob Toplis i./c. Department of Sport & Education, Brunel University (address below).

Investigator: Madeline Row

Participant's signature _____ Date _____

Professor Valsa Koshy
Professor (Education)
Brunel University
Department of Sport & Education
Uxbridge
Middlesex, UB8 3PH

Dr Rob Toplis
Senior Lecturer (Education)
Brunel University
Department of Sport & Education
Uxbridge
Middlesex, UB8 3PH

Focus Group Information

Thank you very much for agreeing to take part in this focus group. I am undertaking this research in order to complete a Doctorate in Education (EdD). I am seeking your views in relation to how groups are organised for teaching, for example either ability set or mixed ability.

You are free to withdraw at any time, without providing a reason or any prejudice; if you do so you do not need to give any reasons.

Everything that is discussed within this focus group is completely confidential, and it is essential that anything discussed in this room must not be mentioned to others. In the future when the results of this research are written up you will be referred to by a pseudonym and will not be identified at all.

Please read the attached consent form carefully. If you are unsure of anything or require further information then please ask.

Questionnaire Information

Thank you very much for agreeing to take part. I am undertaking this research in order to complete a Doctorate in Education (EdD). I am seeking your views in relation to how groups are organised for teaching, for example either ability set or mixed ability.

All you are required to do is complete the attached questionnaire.

You are free to withdraw at any time, and if you wish to do so you do not need to complete the questionnaire. It is not necessary to declare the reasons for your withdrawal. You do not need to write your name on the questionnaire, ensuring that your answers are completely anonymous. Your subject teachers will not be seeing your questionnaire.

Take your time to answer the questions. The questions require you to read each statement, and respond with regard to your thoughts and feelings. There are no right or wrong answers. If there is anything that you do not feel is relevant to you, then you can tick the box at the end (Not Applicable).

Please read the attached consent form carefully. If you are unsure of anything or require further information then please ask.

Appendix Ten – Consent and Information for participants

Focus Group

1) How do you feel about ability grouping in lessons?
   - Knowledge of the system
   - Movement between sets
   - Challenge – is work hard/too easy in different subjects
   - Perseverance towards tasks
   - Confidence in these lessons
   - Numbers in the group
   - Any concerns or anxiety about lessons

2) How do you feel about mixed ability lessons?
   - Pace of work
   - Confidence levels in these lessons
   - Challenge – is work hard/too easy
   - Numbers in the group
   - Perseverance towards tasks
   - Any concerns or anxiety about lessons

3) Which do you prefer, mixed ability or lessons organised by ability?
   - Why?
   - Is this decision affected by the subject

4) What affects how much you enjoy a subject?
   - Mixed ability or organised by ability?

5) What factors are involved in determining whether you persevere to finish a task or just give up?

Year Group	
Subject	**Physics**
Set	

The questionnaire requires you to read each statement, and respond with regard to your thoughts and feelings about **this subject only**. There are no right or wrong answers.
If you would like to write a comment about any of the statements there is a box at the end, however this is completely optional.

Think carefully about each statement, and use the following scale to respond to the statements below:
1 – strongly agree
2 – agree
3 – undecided
4 – disagree
5 – strongly disagree

	Strongly Agree				Strongly Disagree	Comments (optional)
1) I feel confident in this subject	1	2	3	4	5	
2) I am nervous that I will not be able to complete tasks to a good standard in this subject	1	2	3	4	5	
3) I feel challenged and stretched in this subject	1	2	3	4	5	
4) I worry that I am not able to keep up with others in this subject	1	2	3	4	5	
5) I am good at this subject	1	2	3	4	5	
6) I struggle with this subject	1	2	3	4	5	
7) If a task is difficult I would prefer to leave it as opposed to trying it and getting it wrong	1	2	3	4	5	
8) I enjoy this subject	1	2	3	4	5	
9) I find that sometimes I finish work quicker than others in this subject	1	2	3	4	5	
10) I think I will do well in this subject this year	1	2	3	4	5	
11) I feel confident to ask questions in this subject if I am unsure	1	2	3	4	5	
12) Even if I find a task difficult I am determined to try and complete it	1	2	3	4	5	

Thank you for taking the time to complete this questionnaire.

Appendix Eleven – Information regarding subjects selected for the questionnaire

Physics

Science was chosen as a subject to investigate in greater detail as it was the only subject in the school where the grouping of pupils change from mixed ability to ability grouping as they moved through the school.

Throughout the school sciences were all taught in separate lessons, Biology, Chemistry, and Physics. It was only possible to focus upon one area of Science, and Physics was selected due to the availability of this subject in the school. Both Chemistry and Biology had new Heads of Departments in September 2013, so it was thought to be more appropriate to investigate Physics where the head of department and members of the department were in post for a longer period of time and would therefore offer a more settled view of what currently took place within a subject.

Ability grouping begins for the GCSE course (Year 9, aged 15), where pupils study the triple science award. Pupils were placed in the same set for all three science areas, Biology, Chemistry and Physics. Whilst they come under the one umbrella of Science with a Head of Science, each department has their own Head of Department, individual department handbooks, and explain their process for setting differently.

As the separate sciences were taught by different teachers there was a meeting at the end of Year 9 to determine which set pupils would be placed in, and the teachers met again to discuss progress throughout the year. The main decision for determining which ability group a girl was placed into was the discussion between the teachers. The end of year examination mark was considered but was not the sole determining factor.

Modern Foreign Languages

Pupils select which languages they study from the languages offered at school, beginning with one language as they enter the school and increasing to two in Year 8 and Year 9. Pupils were then required to select at least one language for their GCSE.

For this research mainly French lessons were investigated as this was the most popular language studied within the school. However, when girls select a language for GCSE they were able to select from variety of languages and therefore a number of languages were represented in the research for Year 10 and Year 11, for example Italian, Spanish and German. The languages represented in this study were as follows:

- French – 221 pupils (85%)
- Spanish – 27 pupils (10.4%)
- Italian – 5 pupils (1.9%)
- German – 7 pupils (2.7%)

In French ability setting began in Year 8, however since the start of this academic year (September 2013) ability grouping was not being used and classes were taught in mixed ability groups. Therefore ability grouping only currently took place in Year 9. In Year 10 and Year 11 girls who were in the top set in Year 9 were given the opportunity to study Fast Track for GCSE, this allowed pupils to select two languages at GCSE as opposed to just one. This provided good opportunities to challenge gifted linguists by giving an opportunity to study two languages without it taking one of their GCSE choices. However, this could be a contentious issue for parents wanting their daughter to study Fast Track even if they were not in the top set, as their teacher had to recommend a pupil for this Fast Track option.

Physical Education

All Physical Education (PE) lessons throughout the school were taught in form groups, and were therefore mixed ability. In Year 8 and Year 9 pupils had three lessons a week, and once pupils have commenced with GCSE choices they continued with two lessons of PE in Year 10, and one lesson in Year 11. In the lower sixth pupils had one lesson of a PE a week, however this stopped for the upper sixth where PE then became optional.

English

English was taught in mixed ability groups throughout the school, where pupils remain in their form groups. In Year 8 and Year 9 pupils had three lessons a week, and in the GCSE years this increased to four lessons a week.

All year groups

Appendix Twelve – outputs from SPSS from main study

```
T-TEST PAIRS=PhysicsQ1 PhysicsQ2 PhysicsQ3 PhysicsQ4 PhysicsQ5 PhysicsQ6 Ph
ysicsQ7 PhysicsQ8 PhysicsQ9 PhysicsQ10 PhysicsQ11 PhysicsQ12 WITH PEQ1 PEQ2
 PEQ3 PEQ4 PEQ5 PEQ6 PEQ7 PEQ8 PEQ9 PEQ10 PEQ11 PEQ12 (PAIRED)
  /CRITERIA=CI(.9500)
  /MISSING=ANALYSIS.
```

T-Test

```
[DataSet1] C:\Users\Maddie\Documents\EdD\Thesis\Questionnaire\Data.sav
```

Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	PhysicsQ1	2.1346	260	.74120	.04597
	PEQ1	2.0654	260	.92975	.05766
Pair 2	PhysicsQ2	3.6462	260	.96951	.06013
	PEQ2	3.6731	260	1.01573	.06299
Pair 3	PhysicsQ3	2.5885	260	.94023	.05831
	PEQ3	2.7462	260	1.01579	.06300
Pair 4	PhysicsQ4	3.7423	260	1.03180	.06399
	PEQ4	3.6923	260	1.03115	.06395
Pair 5	PhysicsQ5	2.4962	260	.82199	.05098
	PEQ5	2.6385	260	1.00964	.06261
Pair 6	PhysicsQ6	3.8692	260	.89519	.05552
	PEQ6	3.8923	260	.97653	.06056
Pair 7	PhysicsQ7	3.6962	260	1.12706	.06990
	PEQ7	3.8500	260	1.06751	.06620
Pair 8	PhysicsQ8	2.1885	260	.97807	.06066
	PEQ8	1.8308	260	.95972	.05952
Pair 9	PhysicsQ9	3.0308	260	.98982	.06139
	PEQ9	3.0731	260	.94156	.05839
Pair 10	PhysicsQ10	2.4269	260	.71285	.04421
	PEQ10	2.4269	260	.86906	.05390
Pair 11	PhysicsQ11	1.9654	260	1.02984	.06387
	PEQ11	2.0577	260	.91351	.05665
Pair 12	PhysicsQ12	2.0269	260	.86728	.05379
	PEQ12	1.9269	260	.93332	.05788

Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	PhysicsQ1 & PEQ1	260	.038	.546
Pair 2	PhysicsQ2 & PEQ2	260	.145	.020
Pair 3	PhysicsQ3 & PEQ3	260	.234	.000
Pair 4	PhysicsQ4 & PEQ4	260	.070	.258
Pair 5	PhysicsQ5 & PEQ5	260	.077	.213
Pair 6	PhysicsQ6 & PEQ6	260	.024	.705
Pair 7	PhysicsQ7 & PEQ7	260	.171	.006
Pair 8	PhysicsQ8 & PEQ8	260	.149	.016
Pair 9	PhysicsQ9 & PEQ9	260	.060	.337
Pair 10	PhysicsQ10 & PEQ10	260	.066	.288
Pair 11	PhysicsQ11 & PEQ11	260	.273	.000
Pair 12	PhysicsQ12 & PEQ12	260	.379	.000

Paired Samples Test

		Paired Differences		
		Mean	Std. Deviation	Std. Error Mean
Pair 1	PhysicsQ1 - PEQ1	.06923	1.16704	.07238
Pair 2	PhysicsQ2 - PEQ2	-.02692	1.29867	.08054
Pair 3	PhysicsQ3 - PEQ3	-.15769	1.21212	.07517
Pair 4	PhysicsQ4 - PEQ4	.05000	1.40648	.08723
Pair 5	PhysicsQ5 - PEQ5	-.14231	1.25162	.07762
Pair 6	PhysicsQ6 - PEQ6	-.02308	1.30910	.08119
Pair 7	PhysicsQ7 - PEQ7	-.15385	1.41400	.08769
Pair 8	PhysicsQ8 - PEQ8	.35769	1.26390	.07838
Pair 9	PhysicsQ9 - PEQ9	-.04231	1.32475	.08216
Pair 10	PhysicsQ10 - PEQ10	.00000	1.08695	.06741
Pair 11	PhysicsQ11 - PEQ11	-.09231	1.17533	.07289
Pair 12	PhysicsQ12 - PEQ12	.10000	1.00462	.06230

Paired Samples Test

		Paired Differences		t	df
		95% Confidence Interval of the Difference			
		Lower	Upper		
Pair 1	PhysicsQ1 - PEQ1	-.07329	.21175	.957	259
Pair 2	PhysicsQ2 - PEQ2	-.18552	.13167	-.334	259
Pair 3	PhysicsQ3 - PEQ3	-.30572	-.00966	-2.098	259
Pair 4	PhysicsQ4 - PEQ4	-.12176	.22176	.573	259
Pair 5	PhysicsQ5 - PEQ5	-.29516	.01054	-1.833	259
Pair 6	PhysicsQ6 - PEQ6	-.18295	.13679	-.284	259
Pair 7	PhysicsQ7 - PEQ7	-.32653	.01884	-1.754	259
Pair 8	PhysicsQ8 - PEQ8	.20334	.51204	4.563	259
Pair 9	PhysicsQ9 - PEQ9	-.20409	.11947	-.515	259
Pair 10	PhysicsQ10 - PEQ10	-.13274	.13274	.000	259
Pair 11	PhysicsQ11 - PEQ11	-.23584	.05123	-1.266	259
Pair 12	PhysicsQ12 - PEQ12	-.02269	.22269	1.605	259

Paired Samples Test

		Sig. (2-tailed)
Pair 1	PhysicsQ1 - PEQ1	.340
Pair 2	PhysicsQ2 - PEQ2	.738
Pair 3	PhysicsQ3 - PEQ3	.037
Pair 4	PhysicsQ4 - PEQ4	.567
Pair 5	PhysicsQ5 - PEQ5	.068
Pair 6	PhysicsQ6 - PEQ6	.776
Pair 7	PhysicsQ7 - PEQ7	.081
Pair 8	PhysicsQ8 - PEQ8	.000
Pair 9	PhysicsQ9 - PEQ9	.607
Pair 10	PhysicsQ10 - PEQ10	1.000
Pair 11	PhysicsQ11 - PEQ11	.207
Pair 12	PhysicsQ12 - PEQ12	.110

Positive towards ability grouping / Negative towards ability grouping
Positive towards mixed ability / Negative towards mixed ability

Appendix Thirteen

Year 11 Focus Group – Thursday 20th March

MR – Thank you all for agreeing to take part with this research. Please do not worry, there are no right or wrong answers, all I am trying to find out is about your views and experiences in relation to lessons and whether they are organised by ability or in mixed ability in your form groups. Everything you say will be confidential, and I am only recording as I am not quick enough to write everything down. As soon as I type up the recording I will change your names so it will not be possible for anything you say to be identified as you saying it.

So, let's begin, how do you feel about lessons that are organised by ability? For example your maths lessons, either positive or negative.

Penny – I really like sets, as I feel like a work better if I am in with people of my own ability as I feel like in a way if I was in a set with people who were way ahead of me or way behind me then I wouldn't feel like I would actually work hard. Especially in maths everyone is kind of like the same, so it sounds really weird but you all work really hard because you want to be the best...that sounds really lame.

Kerry – I think that... because I'm lower down in the sets, so from that perspective, sometimes I think it is really good because we take things at a slower pace but sometimes you are not pushed. Because everyone is going at a pace to where they are comfortable which sometimes isn't as good.

Sophie – I think it does depend on the subject but like... being down in the lower sets sometimes there is less of an incentive in a way to work hard, which is weird because it should be the other way around. But I think there is more of a drive in the higher sets. We have been in sets in the past for languages but this year we are not and I kind of noticed that it doesn't really apply so much to me personally in languages so I don't find it as a hard adjustment adjusting from being in a set with people as the same ability as me to now being in a class with people a lot better than me

Jen – when we stopped being in sets is when I started to go down in languages. When I was in a set with people that were same I wanted to maintain being the same but when you are in a class with people who are above you you can drift and it doesn't really matter because it is less likely that the teacher will notice.

Penny – I am in fast track for languages, and even though there is quite a lot of pressure, there are people in there who are practically like bilingual and are really good, and that makes me want to work really hard because I am not like one of the best. So I want to work really hard so that I do as well as everyone else.

Ruth – in some subjects it is really necessary, like in Maths if you are going to do the SMQ, because then you do your maths GCSE early to allow you to then do the SMQ. But maybe it is not so necessary in the other subjects.

Amanda – in science they tried to tell us that the sets weren't according to ability but... (girls all laugh)... and that they are just groups that we will work well in. Which I thought was just a lie...

Sophie – I would rather when they approached sets they were just honest and say it is just done by ability, especially in this school it is so easy to notice that it is just down to the grades and marks that you get for tests

Penny – for English and history I am glad that they are not set, as they would be really hard to set as they are more about discussion and stuff, and like your different views

Amanda – I think they could be more flexible between the groups, because I got put in a good div for me when I was new, but they didn't really test me properly.

Ruth – also some people have been allowed to move down and I think if you ever want to move down, obviously you can't ask to move up as you might not be good enough, but I think if you ever want to move down you should be allowed. Because that is the whole point of sets... you need to feel comfortable

Sophie – I feel like that from the teachers perspective it is a lot easier, especially I find in Science, for them to have pupils who are at the same pace or think the same way. Because we often find that when we are revising we all struggle on the same topic because we are in the same set, so that helps from that aspect.

MR – does a lot of movement between sets happen? Either up or down?

Sophie – the only time you would move, recently, is after a whole year, and then that would be the teacher requesting it.

Amanda – I think it would be quite a good incentive if you could actually move up, it might make you try a bit harder

Jen – I know in set 2, because we did the GCSE early, they did say that anyone who wants to leave can leave which was quite good. As there were a lot of people who didn't want to do it early so they just dropped down.

MR – would that have the same incentive though if you were to move down? Or could that have a negative effect for fear of moving down? Or a drive to want to stay in that set?

Penny – I like the fact that there is little movement, maybe thats just because I feel quite well placed, and feel that everyone is at the same ability. I think it would get a bit competitive if it was like... as if there was a lot of movement then you would feel bad if you didn't get moved up and wouldn't feel like you were good enough. So I think it is good how it is quite solid.

Amanda – I think that is true as well, I remember at my last school there was a lot of movement and even when you got to like a good place you didn't want to be constantly worrying about moving down. There should just be a little bit of flexibility because at the moment even if you are completely out of your depth I have not heard of anyone moving

Ruth – well at my brothers school its quite extreme in the sense that at the end of every year they just completely rejig them... erm so it is kind of based on your end of year exam but it is meant to be throughout the whole year. I think it is quite good because it is really motivating because you don't want to flunk an exam because you don't want to move right down, but at the same time if you have a bad day if you are going to be flexible then you have to be really flexible and like shift someone according to their years work not just one exam.

Kerry – I think everyone would always be like really pleased if they were told to move up, but as soon as anyone is told to move down they just get really offended.

Sophie – but I feel like now we have been in sets for so long it is kind of more about what pace you want to work at, because we are essentially learning the same things.

Penny – and I feel like if you are in set 1 set 2, and moving up or down it is not going to make a massive difference moving up or down by one set.

Amanda – it might be a bit disruptive though moving up and down. As at the moment everyone is learning exactly the same thing in our set and if someone came in they might find it difficult.

MR – the opposite then, when you are in mixed ability, do you notice a difference when you come from a set subject to a mixed subject?

Sophie – I'm just better at the subjects that I'm not set at, so everything that I am set in is my lowest subject. So it is weird for me because we are not set by ability it doesn't really give me a scale in class to work out where I am at. But at the same time you are comfortable with your class.

Amanda – I think people take the mixed ability classes a bit less seriously

Penny – I find the opposite, like I'm not as good at English and there are some people in my class who are really really good and obviously it would be weird being set, but it is a bit weird because there is a big range of abilities in my class.

Ruth – like in maths if a teacher is trying to show you how to do something you either get it or you don't and that is why you need sets because if some people are getting it and some people aren't it is hard for the teacher to know what pace to go at. But with English having other people, if you are writing an essay, having other people around you writing their essay isn't going to slow you down or you aren't going to feel pressure to go faster. You are all working to your own level without disrupting others

Penny – I find that being in an English class with people who are really good and naturally good at English actually helps in a way, as when it does come to class discussion, or like History as well, like you do improve being around people who are better. Because you are can see how they are thinking and use their analysis so I think it can be quite good.

Amanda – maybe for analysis based subjects it is good because you can discuss it

Jen – I feel though for subjects like History and RS there is not much that can be done at a faster or slower pace, it is always taught the same

Ruth – I also feel that if everything was setted people would placed in the year group really strongly, whereas you don't want to define someone with numbers so maybe it is better not to have all sets

Penny – it's hard for me to say as I am now in fast track for languages, but I always found it much easier for languages to be in sets. I don't know what others think I do really think that languages should stay in sets

Sophie – I completely disagree... like in every way. It is so much better having the class in mixed ability

Ruth – but I have had a few people say to me who aren't in sets at the moment, they find that in their class they have one person who is literally ridiculously good and is virtually bilingual and then at the other end you have someone who is just doing it because they have to and they really don't like it because they are not good at it, and that really does change the pace of the lesson.

Sophie – I find that there is not much with languages that you can span it across 6 sets, you can't measure much difference. At least with maths you can grade it on a proper number because it is logical thinking.

Jen – I think with languages just having a smaller class will help just as well as having a set.

Penny – I have a friend who is quite good at French, and she has said to me that she finds it frustrating as lessons do go quite slowly. So I think it is hard if you have a wide variety of abilities. She really regrets not doing fast track.

MR – if you had to choose, would you prefer lessons to be organised by ability or mixed ability?

Sophie – if I had to pick I would choose mixed ability lessons, because I think no matter where you are placed it is just your class and it is completely random. Throughout life you will have things that are completely random in how they are organised and you will just have to get on with it, our exams results will be completely random. It will help others as well, even though they might find it a bit slow at times. Also, the range of grades at this school is really not that great, there will be lots of A*.

Penny – I think it really works for the subjects that we have already, I like being in sets for Maths and Science, as I said before we are all really similar in our set and struggle in science with the same topics so it works really well.

Sophie – I will say that for revision it is so useful to be in sets for Science

MR – what affects how much you enjoy a subject?

Kerry – I think people like the subjects that they are good at, and if people are telling them they are good at a subject then they are going to get the confidence

Amanda – I think what Ellie was saying before about being moved down a set, if you were asked to move down a set that would completely ruin the subject for you

Ruth – also if you are in a set that everyone is going faster than you then you won't enjoy it, or in a set where everyone is going slowly and you feel like you could push yourself more you won't enjoy that either.

Kerry – I think your confidence can be depleted if you are put in a lower set, but also if you are in a mixed class and the person next to you keeps getting like 90% then you will again be thinking that you are worse.

Penny – especially with language orals, it is really daunting having to talk to someone who is really really good. I felt like I was misplaced and not in the right set, so I didn't really enjoy it at all.

MR – If a task is really hard, what affects how much you will persevere with it?

Sophie – it depends if there is the possibility of being shown up by someone. As in a mixed class there is always someone who is better than you, and you don't like feeling that you are worse than someone. Compared to a set where you are all equal, where you all either get it or you don't.

Ruth – if you are not in a set, you might get people who have to concentrate really hard to complete a task where others can talk and mess around whilst still being able to do the work and that can be quite hard

Analysis of Focus Groups – Categories raised from Transcripts

Category	Examples from transcript
Positive towards mixed ability Highlighted in blue on transcripts 15 comments	• Can feed ideas off each other (year 9) • Can help understand things better when you hear things said differently (year 10) • It is nice to hear others views in Geography/History where sets are not necessary (year 8) • More relaxing as there is less pressure (year 10) • Feel more confident (year 9) • If you are good at a subject it can be positive to be in a mixed ability class (year 8) • You improve being around people who are better (year 11)
Negative towards mixed ability Highlighted in orange on transcripts 26 comments	• Feeling behind, work moving too quickly (year 8, year 10) • Others getting things more quickly (year 9) • Hard for teachers to get pace right (year 8, year 11) • Some people do not try as hard as others (year 9) • Teachers obviously set within a class anyway, and this makes it more obvious what different levels people are at (year 10) • People get different things at different speeds – if people get it quickly they can then make noise and get bored (year 8, year 9) • Doing oral work in Spanish can be embarrassing in front of others who are really strong (year 9) • Feel self-conscious (year 9) • Do not have confidence, as you do not always know where you fit in the class (year 10) • It is easier to drift as teachers will not notice (year 11) • People take these lessons less seriously (year 11) • Can be frustrating if paces goes too slowly (year 11)
Positive towards ability grouping Highlighted green on transcripts 35 comments	• You can work at the same pace (year 8, year 10) • Makes you feel at ease as no-one is rushing ahead (year 8) • Good to know the level you are at (year 9) • Makes you work harder (year 9, year 11) • More individual attention (lower sets) (year 9) • Being put in set 1 can boost confidence (year 10)
Negative towards ability grouping Highlighted in pink on transcripts 31 comments	• Pressure to keep up with others (top set) (year 10) • Anxieties about being in right set and keeping up with others (year 10, year 11) • Not enough information about how sets are organised or movement between sets (year 10) • Top set is too big (year 8) • There is pressure because everyone is good and average has got a lot higher (year 10) • Asking for help feels like a failure (year 10) • Sometimes the pace is quite fast (year 8, year 11) • Do not always get pushed as hard if you are in the lower sets (year 10, year 11)

	• If you are put in a low set and think you should be higher then it can be really detrimental (year 10, year 11) • More fluidity between sets is needed (year 9, year 10) • Science sets should start earlier – not in year 10 (year 10) • More honesty about sets is needed (year 10) • Being asked to move down can ruin the subject (year 10, year 11)

Appendix Fourteen – Informed consent for participants and information sheet

DECLARATION OF INFORMED CONSENT

I give my formal consent to participate in this study which examines thoughts and experiences of ability setting within a secondary school. I consent to publication of study results so long as the information is anonymous and disguised so that I cannot be identified. I further understand that although a record will be kept of my having participated in the study, data collected from my participation will be identified by number only.

I have been informed that my participation in this study will involve me filling in a questionnaire that measures my thoughts and experiences on ability setting.

I have been informed that there are no known expected discomforts or risks involved in my participation in this study. I will simply be filling in a questionnaire, nothing more.

I have been informed that there are no "disguised" procedures in this study. All procedures can be taken at face value.

I have been informed that the investigators will gladly answer any questions regarding the procedures or purpose of the study when the questionnaires have been completed and returned.

I have been informed that I am free to withdraw from the study at any time without any kind of penalty.

Concerns about any aspects of this study can be referred to Maddie Row, Professor Valsa Koshy, or Dr Rob Toplis i./c. Department of Sport & Education, Brunel University (address below).

Investigator: Madeline Row

Participant's signature Date

_____ _____

Professor Valsa Koshy
Professor (Education)
Brunel University
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Middlesex, UB8 3PH

Dr Rob Toplis
Senior Lecturer (Education)
Brunel University
Department of Sport & Education
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Middlesex, UB8 3PH

Questionnaire Information

Thank you very much for agreeing to take part. I am undertaking this research in order to complete a Doctorate in Education (EdD). I am seeking your views in relation to how groups are organised for teaching, for example either ability set or mixed ability.

All you are required to do is complete the attached questionnaire.

You are free to withdraw at any time, and if you wish to do so you do not need to complete the questionnaire. It is not necessary to declare the reasons for your withdrawal. You do not need to write your name on the questionnaire, ensuring that your answers are completely anonymous. Your subject teachers will not be seeing your questionnaire.

Take your time to answer the questions. The questions require you to read each statement, and respond with regard to your thoughts and feelings. There are no right or wrong answers. If there is anything that you do not feel is relevant to you, then you can tick the box at the end (Not Applicable).

The research collected today will be kept for up to twelve months, and will only be shared with my two supervisors at the university. However, by this time your responses will only be identified by a number.

Please read the attached consent form carefully. If you are unsure of anything or require further information then please ask.

Focus Group Information

I am undertaking this research in order to complete a Doctorate in Education (EdD). I am seeking your views in relation to how groups are organised for teaching, for example either ability grouping or mixed ability.

You are free to withdraw at any time, without providing a reason or any prejudice; if you do so you do not need to give any reasons.

Everything that is discussed within this focus group is completely confidential, and it is essential that anything discussed in this room must not be mentioned to others. In the future when the results of this research are written up you will be referred to by a pseudonym or letter, and it will not be possible to identify you at all.

The research collected today will be kept for up to twelve months, and will only be shared with my two supervisors at the university. However, by this time pseudonyms will have already been introduced.

Please read the attached consent form carefully. If you are unsure of anything or require further information then please ask.

Appendix Fifteen – Consent letter to parents

5th September 2013

Dear Parents,

As you may be aware I am undertaking research in order to complete a Doctorate in Education with Brunel University. My research interest is the effects and practices of ability grouping and mixed ability teaching in secondary education, and I am now collecting further data to allow me to look in greater detail at different subjects.

Your daughter would be required to complete a questionnaire, and possibly take part in a group interview with me. Throughout the whole research project your daughter will remain anonymous and would only be identified in the work as a number or pseudonym. Taking part in this research is voluntary, it is not compulsory at all and your daughter is free to withdraw at any time without having to give any reason. All of the research would take place during school time.

If you gave consent for your daughter previously and are happy for her to be involved again then you do not need to return the reply slip, however if you would not like your daughter to be involved anymore then please return the reply slip below indicating this. If you have not consented previously and are happy for your daughter to be involved then please return the reply slip below.

If you have any questions regarding this then please do not hesitate to contact me at any time and I would be happy to explain the research further to you, either by email (mrow@godolphinandlatymer.com) or by phone (02087411936).

Yours sincerely

Madeline Row

REPLY SLIP

Daughter's name: ..... Form: .....

I DO NOT want my daughter to take part in this research (please tick) ☐

I am happy for my daughter to take part in this research (please tick) ☐

Parent's Signature: ..... Date: .....

Return to M Row by **Monday 16th September 2013**

Appendix Sixteen

Summary of Results

Questionnaire				Focus Groups			
Positive towards ability grouping	**Negative towards ability grouping**	**Positive towards mixed ability**	**Negative mixed ability**	**Positive towards ability grouping**	**Negative towards ability grouping**	**Positive towards mixed ability**	**Negative mixed ability**
Greater levels of confidence and enjoyment in ability grouped lessons		Greater levels of confidence in mixed ability/different subjects	Higher levels of anxiety in mixed ability	Pace of the lesson being appropriate	Anxieties about pressure to keep up with others in the top set and maintain a high standard	Benefit of collaboration, peer support and sharing ideas. Improve when being around better people	Pace can move too quickly and you get left behind. Pace can move too slowly and it is boring... or you get set more work to cover
	Anxiety about completing work to a good standard in ability group		Anxious about not completing tasks to a good standard in mixed ability	Want to maintain position in set so makes you work harder	Pupils experience anxiety/pressure about being able to keep up with others in the set	Feel more relaxed/less stressed/more confident in a mixed ability class	It can be difficult if you are surrounded by others who get things easily/are stronger/experience more success
		Greater challenge and stretch in mixed ability lessons – English	Pupils perceive they struggle more in mixed ability	Increase in self-efficacy/self-esteem when moved up or placed in the top set	Being placed in a low set can reduce your self-esteem/self-efficacy		Feeling self-conscious and leading to feelings of anxiety
		Greater challenge and stretch in mixed ability lessons – PE/MFL	Finishing work quicker than others	Like the habituation of sets – Maths vs Science sets	If placed in a lower set teachers may not push you intellectually for a greater challenge or to work at a faster pace		
				Not rushing ahead, so feel at ease	No confidence in the system – value of tests and fluidity between sets		

Year 8/9 Comparisons							
Positive towards ability grouping	**Negative towards ability grouping**	**Positive towards mixed ability**	**Negative mixed ability**				
Greater levels of confidence			Finishing work quicker than others				
Greater levels of enjoyment			Not completing tasks to a good standard				
			Lower levels of perseverance				
Year 10/11 Comparisons							
Positive towards ability grouping	**Negative towards ability grouping**	**Positive towards mixed ability**	**Negative mixed ability**				
Greater feelings of enjoyment – MFL/PE	Lack of confidence to complete tasks to a good standard – Physics/Eng	Feel more challenged and stretched – Phys/PE, MFL/Eng, MFL/PE	Not completing tasks to a good standard – MFL/Eng, MFL/PE				
	Struggling with the subject – Physics/Eng	Greater levels of enjoyment – MFL/Eng, Physics/Eng	Finishing work quicker than others – MFL/Eng, Physics/Eng				
		Greater confidence about success in subject – MFL/Eng, Physics/Eng	Anxiety about not keeping up with others – MFL/PE				
		Confidence to ask questions – MFL/Eng, MFL/PE	Feelings of struggling – MFL/PE				
		Confidence in the subject – Physics/Eng					

Small effect size
Moderate effect size
Large effect size

Appendix Seventeen – Tables outlining statistical findings from the analysis of Questionnaires

Table 1 Statements where Statistical Differences between Physics and Physical Education were Identified, giving Mean and Standard Deviation Figures, and Eta Squared value to Indicate the Size of the Difference

Statement from Questionnaire	Mean	Standard Deviation	Eta Squared Value
3) I feel challenged and stretched in this subject (Physics)	2.59	.94	.02
3) I feel challenged and stretched in this subject (PE)	2.75	1.02	
8) I enjoy this subject (Physics)	2.19	.98	.07
8) I enjoy this subject (PE)	1.83	.96	

Table 2 Statements where Statistical Differences between English and Modern Foreign Languages (MFL) were Identified, giving Mean and Standard Deviation Figures, and Eta Squared value to Indicate the Size of the Difference

Statement from Questionnaire	Mean	Standard Deviation	Eta Squared Value
3) I feel challenged and stretched in this subject (MFL)	2.38	.99	0.02
3) I feel challenged and stretched in this subject (English)	2.53	.94	
9) I find that sometimes I finish work quicker than others in this subject (MFL)	3.04	1.05	0.05
9) I find that sometimes I finish work quicker than others in this subject (English)	3.31	1.01	
11) I feel confident to ask questions in this subject if I am unsure (MFL)	1.93	1.05	0.02
11) I feel confident to ask questions in this subject if I am unsure (English)	2.11	.99	

Table 3 Statements where Statistical Differences between Physics and English were Identified, giving Mean and Standard Deviation Figures, and Eta Squared value to Indicate the Size of the Difference

Statement from Questionnaire	Mean	Standard Deviation	Eta Squared Value
1) I feel confident in this subject (Physics)	2.13	.74	0.03
1) I feel confident in this subject (English)	2.36	.97	
2) I am nervous that I will not be able to complete tasks to a good standard in this subject (Physics)	3.65	.97	0.11
2) I am nervous that I will not be able to complete tasks to a good standard in this subject (English)	3.21	1.11	
5) I am good at this subject (Physics)	2.50	.82	0.02
5) I am good at this subject (English)	2.67	.97	
6) I struggle with this subject (Physics)	3.87	.90	0.04
6) I struggle with this subject (English)	3.58	1.06	
8) I enjoy this subject (Physics)	2.19	.98	0.02
8) I enjoy this subject (English)	2.38	1.11	
9) I find that sometimes I finish work quicker than others in this subject (Physics)	3.03	.99	0.05
9) I find that sometimes I finish work quicker than others in this subject (English)	3.31	1.01	
10) I think I will do well in this subject this year (Physics)	2.43	.71	0.05
10) I think I will do well in this subject this year (English)	2.67	.90	

Table 4 Statements where Statistical Differences between Modern Foreign Languages (MFL) and PE were Identified, giving Mean and Standard Deviation Figures, and Eta Squared value to Indicate the Size of the Difference

Statement from Questionnaire	Mean	Standard Deviation	Eta Squared Value
1) I feel confident in this subject (MFL)	2.30	.93	0.03
1) I feel confident in this subject (PE)	2.07	.93	
2) I am nervous that I will not be able to complete tasks to a good standard in this subject (MFL)	3.31	1.06	0.07
2) I am nervous that I will not be able to complete tasks to a good standard in this subject (PE)	3.67	1.02	
3) I feel challenged and stretched in this subject (MFL)	2.38	.99	0.08
3) I feel challenged and stretched in this subject (PE)	2.75	1.02	
4) I worry that I am not able to keep up with others in this subject (MFL)	3.47	1.10	0.02
4) I worry that I am not able to keep up with others in this subject (PE)	3.69	1.03	
6) I struggle with this subject (MFL)	3.70	1.02	0.02
6) I struggle with this subject (PE)	3.89	.98	
8) I enjoy this subject (MFL)	2.33	1.02	.14
8) I enjoy this subject (PE)	1.83	.96	

Table 5 Statements where Statistical Differences between Modern Foreign Languages (MFL) and English were Identified between year 8 and year 9, giving Mean and Standard Deviation Figures, and Eta Squared value to Indicate the Size of the Difference

Statement from Questionnaire	Mean	Standard Deviation	Eta Squared Value
9) I find that sometimes I finish work quicker than others in this subject (MFL)	3.01	.97	0.05
9) I find that sometimes I finish work quicker than others in this subject (English)	3.28	1.00	

Table 6 Statements where Statistical Differences between Physics and English were Identified between year 8 and year 9, giving Mean and Standard Deviation Figures, and Eta Squared value to Indicate the Size of the Difference

Statement from Questionnaire	Mean	Standard Deviation	Eta Squared Value
2) I am nervous that I will not be able to complete tasks to a good standard (Physics)	3.64	.91	0.05
2) I am nervous that I will not be able to complete tasks to a good standard (English)	3.39	1.10	
6) I struggle with this subject (Physics)	3.92	.75	0.03
6) I struggle with this subject (English)	3.73	.93	

Table 7 Statements where Statistical Differences between Modern Foreign Languages (MFL) and PE were Identified between year 8 and year 9, giving Mean and Standard Deviation Figures, and Eta Squared value to Indicate the Size of the Difference

Statement from Questionnaire	Mean	Standard Deviation	Eta Squared Value
1) I feel confident in this subject (MFL)	2.26	.92	0.01
1) I feel confident in this subject (PE)	2.05	.88	
2) I am nervous that I will not be able to complete tasks to a good standard in this subject (MFL)	3.35	1.02	0.05
2) I am nervous that I will not be able to complete tasks to a good standard in this subject (PE)	3.63	.99	
7) If a task is difficult I would prefer to leave it as opposed to trying it and getting it wrong (MFL)	3.74	1.10	0.04
7) If a task is difficult I would prefer to leave it as opposed to trying it and getting it wrong (PE)	3.97	.96	
8) I enjoy this subject (MFL)	2.41	1.03	0.23
8) I enjoy this subject (PE)	1.78	.96	

Table 8 Statements where Statistical Differences between Physics and PE were Identified between year 10 and year 11, giving Mean and Standard Deviation Figures, and Eta Squared value to Indicate the Size of the Difference

Statement from Questionnaire	Mean	Standard Deviation	Eta Squared Value
3) I feel challenged and stretched in this lesson (Physics)	2.39	.92	0.13
3) I feel challenged and stretched in this lesson (PE)	2.94	1.13	

Table 9 Statements where Statistical Differences between Modern Foreign Languages (MFL) and English were Identified between year 10 and year 11, giving Mean and Standard Deviation Figures, and Eta Squared value to Indicate the Size of the Difference

Statement from Questionnaire	Mean	Standard Deviation	Eta Squared Value
2) I am nervous that I will not be able to complete tasks to a good standard in this subject (MFL)	3.25	1.11	0.05
2) I am nervous that I will not be able to complete tasks to a good standard in this subject (English)	2.95	1.06	
3) I feel challenged and stretched in this lesson (MFL)	2.07	.91	0.04
3) I feel challenged and stretched in this lesson (English)	2.30	.92	
8) I enjoy this subject (MFL)	2.20	.99	0.04
8) I enjoy this subject (English)	2.47	1.16	
9) I find that sometimes I finish work quicker than others in this subject (MFL)	3.07	1.14	0.05
9) I find that sometimes I finish work quicker than others in this subject (English)	3.36	1.04	
10) I think I will do well in this subject this year (MFL)	2.44	.89	0.08
10) I think I will do well in this subject this year (English)	2.76	.93	
11) I feel confident to ask questions in this subject if I am unsure (MFL)	1.86	1.00	0.10
11) I feel confident to ask questions in this subject if I am unsure (English)	2.25	1.06	

Table 10 Statements where Statistical Differences between Physics and English were Identified between year 10 and year 11, giving Mean and Standard Deviation Figures, and Eta Squared value to Indicate the Size of the Difference

Statement from Questionnaire	Mean	Standard Deviation	Eta Squared Value
1) I feel confident in this subject (Physics)	2.10	.84	0.10
1) I feel confident in this subject (English)	2.56	1.01	
2) I am nervous that I will not be able to complete tasks to a good standard in this subject (Physics)	3.66	1.05	0.20
2) I am nervous that I will not be able to complete tasks to a good standard in this subject (English)	2.95	1.06	
5) I am good at this subject (Physics)	2.44	.85	0.06
5) I am good at this subject (English)	2.74	.99	
6) I struggle with this subject (Physics)	3.80	1.07	0.07
6) I struggle with this subject (English)	3.38	1.20	
8) I enjoy this subject (Physics)	2.16	1.06	0.04
8) I enjoy this subject (English)	2.47	1.16	
9) I find that sometimes I finish work quicker than others in this subject (Physics)	2.91	1.10	0.11
9) I find that sometimes I finish work quicker than others in this subject (English)	3.36	1.04	
10) I think I will do well in this subject this year (Physics)	2.28	.75	0.17
10) I think I will do well in this subject this year (English)	2.76	.93	

Table 11 Statements where Statistical Differences between Modern Foreign Languages (MFL) and PE were Identified between year 10 and year 11, giving Mean and Standard Deviation Figures, and Eta Squared value to Indicate the Size of the Difference

Statement from Questionnaire	Mean	Standard Deviation	Eta Squared Value
2) I am nervous that I will not be able to complete tasks to a good standard in this subject (MFL)	3.25	1.11	0.10
2) I am nervous that I will not be able to complete tasks to a good standard in this subject (PE)	3.73	1.06	
3) I feel challenged and stretched in this lesson (MFL)	2.07	.91	0.26
3) I feel challenged and stretched in this lesson (PE)	2.94	1.13	
4) I worry that I am not able to keep up with others in this subject (MFL)	3.44	1.15	0.06
4) I worry that I am not able to keep up with others in this subject (PE)	3.82	1.04	
6) I struggle with this subject (MFL)	3.56	1.13	0.04
6) I struggle with this subject (PE)	3.86	1.04	
8) I enjoy this subject (MFL)	2.20	.99	0.05
8) I enjoy this subject (PE)	1.90	.97	
11) I feel confident to ask questions in this subject if I am unsure (MFL)	1.86	1.00	0.04
11) I feel confident to ask questions in this subject if I am unsure (PE)	2.10	.95	

Appendix Eighteen – Analysis of Focus Groups

Categories identified	Quotes from transcripts	Sub-categories identified from the Main Categories
Positive comments towards ability grouping	**Year 8:** • I quite like sets, because in maths everyone else is working at the same pace as you and the teacher can take more time with you because the class is smaller • So now I like it how we are more together, it is much nicer • feel that it goes at the right pace • I like set classes as usually everyone is the same level so no-one is rushing ahead so that makes me feel at ease, and then that is sort of easier in a way **Year 9:** • as it is a good way for people to know what their level is in a certain subject, and like sometimes people can be a but upset about that but when it comes to choosing GCSE's and things it is quite useful to see if you think you are good at it but maybe you are not • I think sets are good thing • I feel it is easier to work in sets as everyone around you is at the same understanding in the subject, so you are not like waiting for people or you are not really far behind, so it is easier to work • I find the language sets really useful because there is a really strong divide of people who really enjoy languages and others who prefer to do a different language • everything about the French sets has been done really really well • in French we are still learning the same things in sets 3, 4, and 5, but we learn them in a much calmer way, and we play games. We learn more things orally, that will help us in the future if we are going to visit France • this just brings it back that we should definitely have sets • I think sets are better • But if you are in a set where... not compete but you have to prove to everyone else that we are in this set and we capable of being in this set and we work a lot harder. **Year 10:** • I find that in my maths set there is only 7 of us, so it means that we get more individual attention so I think it works really well • I like sets because it means that everyone works at a similar pace	**Pace:** • I quite like sets, because in maths everyone else is working at the same pace as you and the teacher can take more time with you because the class is smaller • feel that it goes at the right pace • I like set classes as usually everyone is the same level so no-one is rushing ahead so that makes me feel at ease, and then that is sort of easier in a way • So now I like it how we are more together, it is much nicer • I feel it is easier to work in sets as everyone around you is at the same understanding in the subject, so you are not like waiting for people or you are not really far behind, so it is easier to work • I like sets because it means that everyone works at a similar pace • I think the idea of having everyone at the same ability is a good idea • I like the maths sets and feel that they have really helped. With French we were in sets and that really helped because I was with people who were a similar ability to me • I really like sets, as I feel like a work better if I am in with people of my own ability as I feel like in a way if I was in a set with people who were way ahead of me or way behind me then I wouldn't feel like I would actually work hard. Especially in maths everyone is kind of like the same, so it sounds really weird but you all work really hard because you want to be the best...that sounds really lame • sometimes I think it is really good because we take things at a slower pace • When I was in a set with people that were same I wanted to maintain being the same • I feel like that from the teachers perspective it is a lot easier, especially I find in Science, for them to have pupils who are at the same pace or think the same way. Because we often find that when we are revising we all struggle on the same topic because we are in the same set, so that helps from that aspect • but I feel like now we have been in sets for so long it is kind of more about what pace you want to work at, because we are essentially learning the same things

	• I think the idea of having everyone at the same ability is a good idea • I like the maths sets and feel that they have really helped. With French we were in sets and that really helped because I was with people who were a similar ability to me • In maths our sets are quite small, and I think we all experience this, so we get to have a lot of time with the teacher • I thought I was awful at science, but when last year they said I was going into set 2 science that really boosted my confidence a lot definitely and now I go into that lesson feeling that I am better than I thought • I think that if you are at the bottom of your mixed ability class it can be useful to go into sets **Year 11:** • I really like sets, as I feel like a work better if I am in with people of my own ability as I feel like in a way if I was in a set with people who were way ahead of me or way behind me then I wouldn't feel like I would actually work hard. Especially in maths everyone is kind of like the same, so it sounds really weird but you all work really hard because you want to be the best...that sounds really lame. • sometimes I think it is really good because we take things at a slower pace • there is more of a drive in the higher sets • When I was in a set with people that were same I wanted to maintain being the same • I am in fast track for languages, and even though there is quite a lot of pressure, there are people in there who are practically like bilingual and are really good, and that makes me want to work really hard because I am not like one of the best. So I want to work really hard so that I do as well as everyone else. • I feel like that from the teachers perspective it is a lot easier, especially I find in Science, for them to have pupils who are at the same pace or think the same way. Because we often find that when we are revising we all struggle on the same topic because we are in the same set, so that helps from that aspect • I think it would be quite a good incentive if you could actually move up, it might make you try a bit harder • I like the fact that there is little movement, maybe that's just because I feel quite well placed, and feel that everyone is at the same ability. I think it would get a bit competitive if it was like... as if there was a lot of movement then you	• I think it really works for the subjects that we have already, I like being in sets for Maths and Science, as I said before we are all really similar in our set and struggle in science with the same topics so it works really well • Compared to a set where you are all equal, where you all either get it or you don't **Awareness of levels/ability:** • as it is a good way for people to know what their level is in a certain subject, and like sometimes people can be a but upset about that but when it comes to choosing GCSE's and things it is quite useful to see if you think you are good at it but maybe you are not • I think that if you are at the bottom of your mixed ability class it can be useful to go into sets **Confidence that can be gained:** • I thought I was awful at science, but when last year they said I was going into set 2 science that really boosted my confidence a lot definitely and now I go into that lesson feeling that I am better than I thought • I will say that for revision it is so useful to be in sets for Science • I think people like the subjects that they are good at, and if people are telling them they are good at a subject then they are going to get the confidence **Competition:** • But if you are in a set where... not compete but you have to prove to everyone else that we are in this set and we capable of being in this set and we work a lot harder • there is more of a drive in the higher sets • I am in fast track for languages, and even though there is quite a lot of pressure, there are people in there who are practically like bilingual and are really good, and that makes me want to work really hard because I am not like one of the best. So I want to work really hard so that I do as well as everyone else. • I think it would be quite a good incentive if you could actually move up, it might make you try a bit harder **More Attention:**

	would feel bad if you didn't get moved up and wouldn't feel like you were good enough. So I think it is good how it is quite solid. • I think everyone would always be like really pleased if they were told to move up • but I feel like now we have been in sets for so long it is kind of more about what pace you want to work at, because we are essentially learning the same things • it's hard for me to say as I am now in fast track for languages, but I always found it much easier for languages to be in sets • I think it really works for the subjects that we have already, I like being in sets for Maths and Science, as I said before we are all really similar in our set and struggle in science with the same topics so it works really well • I will say that for revision it is so useful to be in sets for Science • I think people like the subjects that they are good at, and if people are telling them they are good at a subject then they are going to get the confidence • Compared to a set where you are all equal, where you all either get it or you don't **35 comments in total**	• I find that in my maths set there is only 7 of us, so it means that we get more individual attention so I think it works really well • In maths our sets are quite small, and I think we all experience this, so we get to have a lot of time with the teacher **Subject specific:** • I find the language sets really useful because there is a really strong divide of people who really enjoy languages and others who prefer to do a different language • everything about the French sets has been done really really well • In French we are still learning the same things in sets 3, 4, and 5, but we learn them in a much calmer way, and we play games. We learn more things orally, that will help us in the future if we are going to visit France **General comments:** • I think sets are good thing • this just brings it back that we should definitely have sets • I think sets are better • I like the fact that there is little movement, maybe that's just because I feel quite well placed, and feel that everyone is at the same ability. I think it would get a bit competitive if it was like... as if there was a lot of movement then you would feel bad if you didn't get moved up and wouldn't feel like you were good enough. So I think it is good how it is quite solid • I think everyone would always be like really pleased if they were told to move up • it's hard for me to say as I am now in fast track for languages, but I always found it much easier for languages to be in sets
Negative comments towards ability grouping	**Year 8:** • For me in my maths set the class is so big and lots of the people get everything really quickly, and if you don't get it there isn't time for things to be explained fully. There is 28 in the class so it is really big, so most of the time we ask our friends and not the teacher • Whereas in like sets if you are behind I find it a lot harder to catch up again, and if I don't get something that the teacher has explained some people move on really quickly as they get it really easily	**Size of class:** • For me in my maths set the class is so big and lots of the people get everything really quickly, and if you don't get it there isn't time for things to be explained fully. There is 28 in the class so it is really big, so most of the time we ask our friends and not the teacher • I would rather it be a small class. Because for example in maths in set 1 there is like 30 girls, which is ok because obviously we don't need as much attention but if we are doing a new and hard topic you might want a bit

	• if you are somewhere in between you don't always have to feel so bad but if you are in maths and you are a bit slow and everyone else is going faster you start to worry about whether you should be in this set **Year 9:** • I don't think we are told enough about how we are doing in the division. For example people are moved up or moved down and they don't really know why. There should be a warning from the teacher that they are maybe struggling and that they might be moved down, I think that might be a better way of doing it • they say it is not based on tests, but we always get moved up and down just after the tests (they all laugh)... so it is a big contradiction • it can be hard because some people might stay in the same set throughout the whole time, whereas some move up and down and up and down, which means they then keep changing teachers which is really hard to adapt to • I would rather it be a small class. Because for example in maths in set 1 there is like 30 girls, which is ok because obviously we don't need as much attention but if we are doing a new and hard topic you might want a bit more attention • It happens in French because there are just so many people, and sometime you don't get a chance to contribute. There are times when the teacher will overlook some people who they know are doing ok because there is so many of us **Year 10:** • I think sometimes if you are put with people who are all of the same standard as you then there is pressure to stay... to keep up with everyone else because you want to stay... feel like you are the same ability as everyone else • When they introduce sets into a subject that wasn't previously organised by ability, like science is new to having sets this year, I feel like my ability has dropped because now... where last year I was in a mixed ability class now everyone is the same if not better than me. And I feel like I am lagging behind • Well it is just the change, before I would be one of a few people who had my hand up, now virtually everyone has their hand up. The average score with tests has gone up as well. • Science sets are much bigger, so today in chemistry I didn't know who to turn to because our teacher was busy and I just didn't understand what was going on	more attention • It happens in French because there are just so many people, and sometime you don't get a chance to contribute. There are times when the teacher will overlook some people who they know are doing ok because there is so many of us • Well it is just the change, before I would be one of a few people who had my hand up, now virtually everyone has their hand up. The average score with tests has gone up as well. • Science sets are much bigger, so today in chemistry I didn't know who to turn to because our teacher was busy and I just didn't understand what was going on **Pace:** • Whereas in like sets if you are behind I find it a lot harder to catch up again, and if I don't get something that the teacher has explained some people move on really quickly as they get it really easily • if you are somewhere in between you don't always have to feel so bad but if you are in maths and you are a bit slow and everyone else is going faster you start to worry about whether you should be in this set • I think sometimes if you are put with people who are all of the same standard as you then there is pressure to stay... to keep up with everyone else because you want to stay... feel like you are the same ability as everyone else • There is a lot of pressure on you in the top set to do really well and work at a fast pace • Sometimes you are not pushed. Because everyone is going at a pace to where they are comfortable which sometimes isn't as good. • also if you are in a set that everyone is going faster than you then you won't enjoy it, or in a set where everyone is going slowly and you feel like you could push yourself more you won't enjoy that either **Consistency:** • it can be hard because some people might stay in the same set throughout the whole time, whereas some move up and down and up and down, which means they then keep changing teachers which is really hard to adapt to • I think maybe last year we should have had science sets to get in the flow,

	• If I had been put in a low set I would really feel that I was useless and not feel very confident at all • But if you were at the top of the mixed ability class and put into a set then it can feel like you are put down to the bottom again • Now in Science as well you are only competing against averages in your set, whereas before you were competing against the whole year group. So before you were trying to get a good mark across the whole year group, but now if you are only trying to well amongst your class your teacher might not push you beyond that and possibly just be content with a B where actually I want to be getting an A* • I have a friend who is really good at Physics and Chemistry, and was put in set 3. She was really disappointed by this as she thought she was better at Science than that. I think the detriment it can do if you think you are good at something and get mis-setted outweighs if you think you are bad something and get put in a higher set • So I think a bit more fluidity between the sets should be allowed • Some people are struggling and some people are finding the work too easy in the sets, especially in the middle of the sets then they should be re-evaluated • There is a lot of pressure on you in the top set to do really well and work at a fast pace • I think maybe last year we should have had science sets to get in the flow, because the good thing about maths is that we have been in our sets for 3 years and that is why we feel so comfortable **Year 11:** • Sometimes you are not pushed. Because everyone is going at a pace to where they are comfortable which sometimes isn't as good. • being down in the lower sets sometimes there is less of an incentive in a way to work hard • I would rather when they approached sets they were just honest and say it is just done by ability, especially in this school it is so easy to notice that it is just down to the grades and marks that you get for tests • I think they could be more flexible between the groups • I remember at my last school there was a lot of movement and even when you got to like a good place you didn't want to be constantly worrying about moving down • But as soon as anyone is told to move down they just get really offended.	because the good thing about maths is that we have been in our sets for 3 years and that is why we feel so comfortable **More transparency of the system:** • I don't think we are told enough about how we are doing in the division. For example people are moved up or moved down and they don't really know why. There should be a warning from the teacher that they are maybe struggling and that they might be moved down, I think that might be a better way of doing it • they say it is not based on tests, but we always get moved up and down just after the tests (they all laugh)... so it is a big contradiction • So I think a bit more fluidity between the sets should be allowed • Some people are struggling and some people are finding the work too easy in the sets, especially in the middle of the sets then they should be re-evaluated • I would rather when they approached sets they were just honest and say it is just done by ability, especially in this school it is so easy to notice that it is just down to the grades and marks that you get for tests • I think they could be more flexible between the groups • I remember at my last school there was a lot of movement and even when you got to like a good place you didn't want to be constantly worrying about moving down **Adapting to change:** • When they introduce sets into a subject that wasn't previously organised by ability, like science is new to having sets this year, I feel like my ability has dropped because now... where last year I was in a mixed ability class now everyone is the same if not better than me. And I feel like I am lagging behind • But if you were at the top of the mixed ability class and put into a set then it can feel like you are put down to the bottom again **Confidence:** • If I had been put in a low set I would really feel that I was useless and not feel very confident at all • I have a friend who is really good at Physics and Chemistry, and was put in

	• I also feel that if everything was setted people would placed in the year group really strongly, whereas you don't want to define someone with numbers so maybe it is better not to have all sets • if you were asked to move down a set that would completely ruin the subject for you • also if you are in a set that everyone is going faster than you then you won't enjoy it, or in a set where everyone is going slowly and you feel like you could push yourself more you won't enjoy that either • I think your confidence can be depleted if you are put in a lower set **31 comments in total**	set 3. She was really disappointed by this as she thought she was better at Science than that. I think the detriment it can do if you think you are good at something and get mis-setted outweighs if you think you are bad something and get put in a higher set • if you were asked to move down a set that would completely ruin the subject for you • I think your confidence can be depleted if you are put in a lower set **Teacher expectation:** • Now in Science as well you are only competing against averages in your set, whereas before you were competing against the whole year group. So before you were trying to get a good mark across the whole year group, but now if you are only trying to well amongst your class your teacher might not push you beyond that and possibly just be content with a B where actually I want to be getting an A* • being down in the lower sets sometimes there is less of an incentive in a way to work hard **General comment:** • I also feel that if everything was setted people would be placed in the year group really strongly, whereas you don't want to define someone with numbers so maybe it is better not to have all sets
Positive comments towards mixed ability groups	Year 8: • it is more fun to do in your form group as you get to hear other people's opinions and their analysis so sets isn't necessary here • well I am less stressed when I am with my entire class as it is more mixed and I find it easier to have people who are working at different paces • But if you are a bit slower or faster in a mixed class then you think that it doesn't matter because everyone is different, so I definitely feel a lot more relaxed in mixed classes Year 9 • But I think English is different as it is much easier to feed off each other, and if you are not as good sometimes they are able to understand it better when they hear different people in their class say something. And you say people might say something that others don't really understand, but that might allow	**Less Stressful/More relaxed and fun:** • it is more fun to do in your form group as you get to hear other people's opinions and their analysis so sets isn't necessary here • well I am less stressed when I am with my entire class as it is more mixed and I find it easier to have people who are working at different paces • I just feel that I look forward to subjects that aren't set a lot more and I enjoy them more **Pace:** • But if you are a bit slower or faster in a mixed class then you think that it doesn't matter because everyone is different, so I definitely feel a lot more relaxed in mixed classes • But with English having other people, if you are writing an essay, having

	you to see something in a different way as it can be really good to hear what other people think • I would find it embarrassing to say something stupid in my set rather than in our form groups • I just feel that I look forward to subjects that aren't set a lot more and I enjoy them more • I know I am with my form where I feel a lot more confident and I can say whatever and they are a lot more fun **Year 10:** • I usually feel more confident in a mixed ability class • I think if you are good at a subject it is really nice to be in a mixed ability class because you can get lots of confidence out of it • It does show me what I have to do and where I have to go **Year 11:** • for English and history I am glad that they are not set, as they would be really hard to set as they are more about discussion and stuff, and like your different views • But with English having other people, if you are writing an essay, having other people around you writing their essay isn't going to slow you down or you aren't going to feel pressure to go faster. You are all working to your own level without disrupting others • I find that being in an English class with people who are really good and naturally good at English actually helps in a way, as when it does come to class discussion, or like History as well, like you do improve being around people who are better. Because you are can see how they are thinking and use their analysis so I think it can be quite good • maybe for analysis based subjects it is good because you can discuss it • It is so much better having the class in mixed ability • if I had to pick I would choose mixed ability lessons, because I think no matter where you are placed it is just your class and it is completely random **15 comments in total**	other people around you writing their essay isn't going to slow you down or you aren't going to feel pressure to go faster. You are all working to your own level without disrupting others **Sharing ideas:** • But I think English is different as it is much easier to feed off each other, and if you are not as good sometimes they are able to understand it better when they hear different people in their class say something. And you say people might say something that others don't really understand, but that might allow you to see something in a different way as it can be really good to hear what other people think • It does show me what I have to do and where I have to go • for English and history I am glad that they are not set, as they would be really hard to set as they are more about discussion and stuff, and like your different views • I find that being in an English class with people who are really good and naturally good at English actually helps in a way, as when it does come to class discussion, or like History as well, like you do improve being around people who are better. Because you are can see how they are thinking and use their analysis so I think it can be quite good • maybe for analysis based subjects it is good because you can discuss it **Feeling more confidence and less self-conscious:** • I would find it embarrassing to say something stupid in my set rather than in our form groups • I know I am with my form where I feel a lot more confident and I can say whatever and they are a lot more fun • I usually feel more confident in a mixed ability class • I think if you are good at a subject it is really nice to be in a mixed ability class because you can get lots of confidence out of it **General comments:** • It is so much better having the class in mixed ability • if I had to pick I would choose mixed ability lessons, because I think no matter where you are placed it is just your class and it is completely random

Negative comments towards mixed ability groups	**Year 8:** • loads of people in my class get things really quickly and I am just sitting there not really knowing what to do • Whereas in year 7 when maths was in our form groups people were racing ahead already finished and others were still on the first question • I sometimes find in languages that work goes too quickly and I miss things, then next lesson I still don't understand and then I start to panic that I have missed things that I will need for the end of year exam and get myself into a state • there are some really clever people in the class and some people are going slower and need to process things, so it is hard for the teacher to get the pace right • if it is mixed ability then there are some people who are bit frustrating as they don't seem to be trying to get it and you want to get on or there are people speeding ahead and you haven't got it yet • But sometimes in mixed classes you may find yourself like speeding ahead or being really far behind and possibly then getting extra work as you usually have to finish it for homework **Year 9:** • I wish we were set in Spanish, because in my class what they do is they have all the best people at the back, and the worst people at the front. Because you all get set the same work, and you can see the difference between the different rows. Whereas if we were set we would be given work that is more appropriate to your level • The people at the back always finish really quickly, whereas the people at the front are rushed along and you end up asking the people behind you for help • So it is really hard when you still want to really learn but others have given up with it • If you are in a much bigger class you can feel really self-conscious about what you are saying... you don't want to put your hand up and get it wrong and slow down the people who find it really easy. Because the groups in Science are really big, some people find it easy, and so when you are struggling with a topic and you ask a question they are often talking or making lots of noise as they already understand what is going on • also in Spanish the bilinguals sit on the back row, and if you are asked to do something speaking you often feel really self-conscious trying to do an accent	**Pace:** • loads of people in my class get things really quickly and I am just sitting there not really knowing what to do • Whereas in year 7 when maths was in our form groups people were racing ahead already finished and others were still on the first question • I sometimes find in languages that work goes too quickly and I miss things, then next lesson I still don't understand and then I start to panic that I have missed things that I will need for the end of year exam and get myself into a state • there are some really clever people in the class and some people are going slower and need to process things, so it is hard for the teacher to get the pace right • if it is mixed ability then there are some people who are bit frustrating as they don't seem to be trying to get it and you want to get on or there are people speeding ahead and you haven't got it yet • But sometimes in mixed classes you may find yourself like speeding ahead or being really far behind and possibly then getting extra work as you usually have to finish it for homework • I wish we were set in Spanish, because in my class what they do is they have all the best people at the back, and the worst people at the front. Because you all get set the same work, and you can see the difference between the different rows. Whereas if we were set we would be given work that is more appropriate to your level • The people at the back always finish really quickly, whereas the people at the front are rushed along and you end up asking the people behind you for help • they find that in their class they have one person who is literally ridiculously good and is virtually bilingual and then at the other end you have someone who is just doing it because they have to and they really don't like it because they are not good at it, and that really does change the pace of the lesson • I have a friend who is quite good at French, and she has said to me that she finds it frustrating as lessons do go quite slowly. So I think it is hard if you have a wide variety of abilities **Attitude of others:** • So it is really hard when you still want to really learn but others have given

	• If you are surrounded by people who are really good at a subject and you are less good at it, you can feel really self-conscious. As if there are two people with their hands up, you feel like you are going to have a much worse answer than them • But with science when there is definitely a answer you might not want to put your hand up because you might not have it right • As some people have really analytical minds and give like a really good answer, whereas other people might say something and we don't really understand • no-one really works as hard because you are with your form, so if someone says something silly everyone laughs, and sometimes you play around and stuff like that **Year 10:** • Now I have been thrown back into mixed because I am not fast track. So I have people who are way above my ability in my class, and have found going from being in a set to not being in a set very difficult • in a mixed ability class you don't really have the confidence to think that you are good at a subject until you are told by your teachers • if you are not very good it can put you down **Year 11:** • when we stopped being in sets is when I started to go down in languages • when you are in a class with people who are above you you can drift and it doesn't really matter because it is less likely that the teacher will notice • as soon as anyone is told to move down they just get really offended • they find that in their class they have one person who is literally ridiculously good and is virtually bilingual and then at the other end you have someone who is just doing it because they have to and they really don't like it because they are not good at it, and that really does change the pace of the lesson • I have a friend who is quite good at French, and she has said to me that she finds it frustrating as lessons do go quite slowly. So I think it is hard if you have a wide variety of abilities • also if you are in a mixed class and the person next to you keeps getting like 90% then you will again be thinking that you are worse • Especially with language orals, it is really daunting having to talk to someone who is really really good. I felt like I was misplaced and not in the right set, so I didn't really enjoy it at all • As in a mixed class there is always someone who is better than you, and you	up with it • no-one really works as hard because you are with your form, so if someone says something silly everyone laughs, and sometimes you play around and stuff like that **Size of Class:** • If you are in a much bigger class you can feel really self-conscious about what you are saying... you don't want to put your hand up and get it wrong and slow down the people who find it really easy. Because the groups in Science are really big, some people find it easy, and so when you are struggling with a topic and you ask a question they are often talking or making lots of noise as they already understand what is going on • when you are in a class with people who are above you you can drift and it doesn't really matter because it is less likely that the teacher will notice **Feeling self-conscious/Lack of confidence:** • also in Spanish the bilinguals sit on the back row, and if you are asked to do something speaking you often feel really self-conscious trying to do an accent • If you are surrounded by people who are really good at a subject and you are less good at it, you can feel really self-conscious. As if there are two people with their hands up, you feel like you are going to have a much worse answer than them • But with science when there is definitely a answer you might not want to put your hand up because you might not have it right • in a mixed ability class you don't really have the confidence to think that you are good at a subject until you are told by your teachers • if you are not very good it can put you down • as soon as anyone is told to move down they just get really offended • also if you are in a mixed class and the person next to you keeps getting like 90% then you will again be thinking that you are worse • Especially with language orals, it is really daunting having to talk to someone who is really really good. I felt like I was misplaced and not in the right set, so I didn't really enjoy it at all • As in a mixed class there is always someone who is better than you, and you don't like feeling that you are worse than someone

	don't like feeling that you are worse than someone **26 comments in total**	**General comments:** • Now I have been thrown back into mixed because I am not fast track. So I have people who are way above my ability in my class, and have found going from being in a set to not being in a set very difficult • when we stopped being in sets is when I started to go down in languages

Appendix Nineteen – Tables outlining Focus Group analysis with key quotes

Table 1 Positive comments towards ability grouping with regard to working at the same pace

Participant	Quote
Mary – Year 8 (line 51) Set 2 Maths	"I like set classes as usually everyone is the same level so no-one is rushing ahead so that makes me feel at ease, and then that is sort of easier in a way"
Sarah – Year 9 (line 21) Set 1 Maths	"I feel it is easier to work in sets as everyone around you is at the same understanding... so you are not waiting around for people or you are not really far behind, so it is easier to work
Elaine – Year 10 (line 24) Set 4 Maths Set 4 Science	"I like sets because it means that everyone works at a similar pace to you..."
Emma – Year 10 (line 29) Set 2 Maths Set 4 Science	"I think the idea of having everyone at the same ability is a good idea"
Penny – Year 11 (line 12) Set 3 Maths Set 1 Languages Set 2 Sciences	"I really like sets, as I feel like a work better if I am in with people of my own ability... if I was in a set with people who were way ahead of me or way beyond me then I wouldn't feel like I would actually work hard"
Jen – Year 11 (line 26) Set 2 Maths Set 3 Science	"When I was in a set with people that were same I wanted to maintain being the same but when you are in a class with people who are above you you can drift and it doesn't really matter because it is less likely that the teacher will notice"
Sophie – Year 11 (line 50) Set 7 Maths Set 5 Science	"...from the teachers perspective it is a lot easier...for them to have pupils who are at the same pace or think the same way"

Table 2 Positive comments towards ability grouping regarding confidence gained from top set pupils

Participant	Quote
Annette – Year 10 (line 47) Set 2 Maths Set 1 Science	"I thought I was awful at Science, but when last year they said I was going into set 1 that really boosted my confidence a lot...and now I go into that lesson feeling that I am better than I thought"
Kerry – Year 11 (line 80) Set 6 Maths Set 6 Science	"I think everyone would always be like really pleased if they were told to move up..."
Kerry – Year 11 (line 142) Set 6 Maths Set 6 Science	"I think people like the subjects that they are good at, and if people are telling them they are good at a subject then they are going to get the confidence

Table 3 Negative effects of ability grouping

Participant	Quote
Annette – Year 10 (line 52) Set 2 Maths Set 1 Science	"...if I had been put in a low set I would really feel that I was useless and not feel very confident at all"
Hannah – Year 10 (line 67) Set 1 Maths Set 1 Science	"I have a friend who is really good at Physics and Chemistry, and put into set 3. She was really disappointed by this as she thought she was a better at Science than that. I think the detriment it can do if you think you are good at something...outweighs if you think you are bad something and get put in a higher set"
Kerry – Year 11 (line 149) Set 6 Maths Set 6 Science	"I think your confidence can be depleted if you are put in a lower set"

Table 4 Anxieties pupils feel towards ability grouping and pressures related to being placed in the top set

Participant	Quote
Julie – Year 8 (line 16) Set 1 Maths	"For me in my maths set the class is so big and lots of the people get everything really quickly, and if you don't get it there isn't time for things to be explained fully. There is 28 in the class so it is really big, so most of the time we ask our friends and not the teacher"
Annette – Year 10 (line 12) Set 2 Maths Set 1 Science	"I think sometimes if you are put with people who are all of the same standard as you then there is pressure to stay...to keep up with everyone else because you want to stay...feel like you are the same ability as everyone else"
Hannah – Year 10 (line 17) Set 1 Maths Set 1 Science	"When they introduced sets into a subject that wasn't previously organised by ability, like Science is new to having sets this year, I feel like my ability has dropped because now...where last year I was in mixed ability class now everyone is the same if not better than me. And I feel like I am lagging behind a bit"
Hannah – Year 10 (line 88) Set 1 Maths Set 1 Science	"there is a lot of pressure on you in the top set to do really well and work at a fast pace"

Table 5 Anxieties towards ability grouping from pupils in lower sets

Participant	Quote
Jane – Year 10 (line 61) Set 7 Maths Set 6 Science	"Now in Science as well you are only competing against averages in your set, whereas before you were competing against the whole year group. So before you were trying to get a good mark across the whole year group, but now if you are only to do well amongst your class your teacher might not push you beyond that and possibly just be content with a B where actually I want to be getting an A*"
Kerry – Year 11 (line 18) Set 6 Maths Set 6 Science	"...but sometimes you are not pushed. Because everyone is going at a pace to where they are comfortable which sometimes isn't good"
Sophie – Year 11 (line 20) Set 7 Maths Set 5 Science	"...being down in the lower sets sometimes there is less of an incentive in a way to work hard"

Table 6 Concerns with ability grouping in relation to the system

Participant	Quote
Amy – Year 9 (line 16) Set 3 Maths	"...I don't think we are told enough about how we are doing in the division. For example people are moved up or moved down and they don't really know why. There should be a warning from the teacher that they are maybe struggling and that they might be moved down, I think that might be a better way of doing it"
Clare – Year 9 (line 41) Set 1 Maths	"they say it is not based on tests, but we always get moved up and down just after the tests...so it is a big contradiction"
Emma – Year 10 (line 72) Set 2 Maths Set 4 Science	"...I think a bit more fluidity between the sets should be allowed..."
Sophie – Year 11 (line 39) Set 7 Maths Set 5 Science	"I would rather when they approached sets they were just honest and say it is just done by ability, especially in this school it is so easy to notice that it is just down to the grades and marks that you get for tests"
Amanda – Year 11 (line 70) Set 1 Maths Set 2 Science	"...at my last school there was a lot of movement and even when you got like a good place you didn't want to be constantly worrying about moving down"

Table 7 Support towards mixed ability lessons with regard to learning from each other

Participant	Quote
Mary – Year 9 (line 129) Set 2 Maths	"...I think English is different as it is much easier to feed off each other, and if you are not as good sometimes they are able to understand it better when they hear different people in their class say something...that might allow you to see something in a different way as it can be really good to hear what other people think"
Penny – Year 11 (line 104) Set 3 Maths Set 1 Languages Set 2 Sciences	"I find that being in an English class with people who are really good and naturally good at English actually helps in a way...you do improve being around people who are better"

Table 8 Feelings of increased confidence in mixed ability lessons

Participant	Quote
Julie – Year 8 (line 39) Set 1 Maths	"...well I am less stressed when I am with my entire class as it is more mixed and I find it easier to have people who are working at different paces"
Teresa – Year 8 (line 48) Set 3 Maths	"...if you are a bit slower or faster in a mixed class then you think it doesn't matter because everyone is different, so I definitely feel a lot more relaxed in mixed classes"
Clare – Year 9 (line 135) Set 1 Maths	"I would find it embarrassing to say something stupid in my set rather than in our form groups. As we know each other quite well..."
Laura – Year 9 (line 164) Set 3 Maths	"I just feel that I look forward to subjects that aren't set a lot more and I enjoy them more. As I know I am with my form where I feel a lot more confident and I can say whatever..."
Hannah – Year 10 (line 42) Set 1 Maths Set 1 Science	"I usually feel more confident in a mixed ability class"
Jane – Year 10 (line 58) Set 7 Maths Set 6 Science	"I think if you are good at a subject it is really nice to be in a mixed ability class because you can get lots of confidence out of it...it does show me what I have to do and where I have to go"

Table 9 Concerns regarding mixed ability classes in relation to feeling self-conscious and lacking confidence

Participants	Quote
Amy – Year 9 (line 106) Set 3 Maths	"If you are in a much bigger class you can feel really self-conscious about what you are saying...you don't want to put your hand up and get it wrong and slow down the people who find it really easy...so when you are struggling with a topic you ask a question they are often talking or making lots of noise as they already understand what is going on"
Lucy – Year 9 (line 111) Set 4 Maths	"...also in Spanish the bilinguals sit on the back row, and if you are asked to do something speaking you often feel really self-conscious trying to do an accent. So I try not to do an accent as I don't want to make a fool out of myself..."
Annette – Year 10 (line 49) Set 2 Maths Set 1 Science	"But in a mixed ability class you don't really have the confidence to think that you are good at a subject until you are told by your teachers"
Jane – Year 10 (line 58) Set 7 Maths Set 6 Science	"I think if you are good at a subject it is really nice to be in a mixed ability class because you can get lots of confidence out of it. But if you are not very good it can put you down"
Kerry – Year 11 (line 149) Set 6 Maths Set 6 Science	"...but also if you are in a mixed class and the person next to you keeps getting like 90% then you will again be thinking that you are worse"
Penny – Year 11 (line 152) Set 3 Maths Set 1 Languages Set 2 Sciences	"Especially with language orals, it is really daunting having to talk to someone who is really good"
Sophie – Year 11 (line 156) Set 7 Maths Set 5 Science	"As in a mixed class there is always someone who is better than you, and you don't like feeling that you are worse than someone. Compared to a set where you are all equal, where you all either get it or you don't..."

Table 10 Concerns with mixed ability classes

Participant	Quote
Teresa – Year 8 (line 44) Set 3 Maths	"...if it is mixed ability then there are some people who are a bit frustrating as they don't seem to be trying to get it and you want to get on or there are people speeding ahead and you haven't got it yet"
Laura – Year 9 (line 71) Set 3 Maths	"So it is really hard when you still want to really learn but others have given up with it"
Clare – Year 9 (line 155) Set 1 Maths	"...no-one really works as hard because you are with your form, so if someone says something silly everyone laughs, and sometimes you play around..."
Amanda – Year 11 (line 94) Set 1 Maths Set 2 Science	"I think people take the mixed ability classes a bit less seriously"