



UNIVERSITY OF LEEDS

**ANALYSING THE NATURE OF PUPILS' INTERACTIONS IN
DIFFERENT FIXED AND MIXED ABILITY GROUPS IN THE
PRIMARY CLASSROOM**

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ABSTRACT

Group work is defined as an instructional strategy to encourage social interaction among pupils. Pupils are more likely to work in groups to perform their daily based learning activities in most primary classrooms in England. Pupils sit around the table and apparently work in groups. However, putting pupils in groups does not always guarantee that they interact and communicate with one another to fulfil the theoretical expectations advocated in constructivists' theories of learning. There can be various factors related to pupils and their context which can affect their interactions to make group work successful in any classroom. This study aimed to explore the nature of pupils' interaction and their perceptions of working with others during their routinely organized group work in a state primary school in England. The primary focus of the study was to analyse the nature of pupils' interactions under various grouping structures organized by the class teacher, and to explore pupils' perceptions about group work while identifying various contextual, social and cultural factors which can influence pupils' interactions and their perceptions of group work.

In this small-scale qualitative study, I used naturalistic participant observation to observe pupils' interactions during their routinely organized group work in one primary classroom. I also used informal conversational interviews to explore pupils' perceptions about their experiences of working with others in groups. Both the class and support teachers of the observed class were also involved in the research so that I may gain their perspectives on the organisation of group work. The qualitative data that was gathered in the form of pupils' conversations, actions, verbal and non-verbal interactions and dialogues was analysed by using first a thematic, and later on through discourse analytical approaches.

The findings of my research are drawn on the ecological model of Bronfenbrenner which revealed that the pupils adopt dynamic, situational, cooperative and non-cooperative interactions towards their peers during their group work. They participated in task-related discussions and remained cooperative by showing positive social attitudes of helping and encouraging others. They showed non-cooperative interactions by being competitive and showing mistrust towards their peers. The pupils also exhibited gender biased attitudes which influenced their decisions of being cooperative or non-cooperative towards a particular peer. The use of an ecological model helped me to illicit that pupils were influenced from their immediate and wider

contexts while interacting with their peers. In the immediate setting of the classroom, pupils were dependent on the group structure, teaching instructions and learning tasks to work as a group or as an individual. Similarly, pupils were dependent on, and were influenced by, their wider contexts (i.e., interpretations of the national curriculum guidance, pupils' socio-cultural backgrounds and community influences) to adopt competitive and gender biased interactions. In light of these findings, I suggest that the success of social interactions among pupils is dependent on the context which is interwoven by various internal organisational, social, educational, as well as cultural layers. These influences that come from the internal and external contextual layers cannot be ignored in any educational research aiming to investigate classroom practices or pupils' learning experiences inside state primary schools.

CHAPTER 1: INTRODUCTION

1.1 About myself

After graduating in General Psychology, I decided to do a Master's degree in this subject. Unluckily, I missed the admission date and therefore, could not get enrolled for the M.A course of that year.

I enrolled on a nine-month B.Ed. teaching course in Pakistan on my mother's advice. Personally, I was not really happy about taking this training at first, but I found it unexpectedly interesting. It enabled me to learn about the teaching and learning process, classroom organisation and pedagogies, and the overall school context. I found most of the knowledge relevant within the field of psychology which was my basic area of specialization. Viewing my role as a teacher, I would say my understanding of human psychology helped me to understand my students, especially their unique and individual personalities in their learning processes. I taught in a primary school for three months as a requirement of the degree. I enjoyed that invaluable experience, as it enabled me to fully understand the practices of the real classroom.

Working as a teacher was actually an accomplishment of my childhood dreams. Often my mother shared with me that sometimes I pretended to be a teacher in my childhood. I used to make imaginary classrooms using dolls and toys which took the role of my students and placing myself in the role of their teacher.

After becoming motivated by that short teaching course, I changed my mind about my career. I decided not to study General Psychology, and pursue my studies further in Education. As a result, I started my Master's in Teacher Education in the Department of Education at Fatima Jinnah Women's University, situated in Rawalpindi, Pakistan.

Before starting my M.A, I taught in a local primary school in Pakistan which gave me another opportunity to think about some of the problems that related to teaching and learning practices in the primary schools of Pakistan. I would say that I began my M.A with several questions about the teaching practices in public schools. As being a student of Education, I tried to explore their answers while undertaking several projects within different schools. One of these appealed to me a greatly, because it was designed to help young children from underprivileged areas of the capital city

(Islamabad) with the cooperation of a Non-Government Organisation (Educacy Foundation, USAID, 2008). During that project, we organized a summer school lesson to teach children about literacy and numeracy, and additionally we tried to help them to acquire social skills. In conjunction with this, as part of a designed agenda, we persuaded parents to support their children's education. We also tried to investigate issues hindering parents in terms of sending their children to school. That effort served as a pathway for higher authorities to diagnose and highlight some of the major factors behind the low literacy rates in those areas.

As part of a Master's degree dissertation, I conducted an action research project in one of those schools. The general teaching approach is mostly teacher-oriented in the public schools of Pakistan. Therefore, the study was aimed at improving the teaching of Mathematics by making it student-centred. My intentions were to provide students with an interesting, friendly and socially secure atmosphere in classrooms, which may help them to improve their learning. After completing my degree, I worked as a support teacher at the same university, which built on my professional confidence. After a year of working in this role, some of my friends went to the USA to pursue their PhD studies which were sponsored by Pre-Step (an American scholarship programme for underdeveloped countries). I had hoped to join them but could not because I had planned to join my family here, in the UK.

1.1 My decision to study group work

During the first week of my arrival from Pakistan and I was helping my nieces with their homework. One of my nieces whispered in my ear:

'Kahla' (Urdu translation of the word 'Aunty') "Do you know Aima (my other niece)? Yes ... she played with Maria at playtime".

My other niece (Aima) soon started justifying: "No. I did not. She is lying".

From my experience in the classroom, I considered that perhaps Maria was a naughty child. In Pakistani classrooms where I taught for approximately one and a half years, when children create disciplinary problems they face troubles from the class teacher and are labelled as troublemakers in the class. Therefore, the rest of the students in the class do not like to play with them for some time or a few days. When I asked my nieces why they were saying this (what's wrong with Maria to play with her). My niece replied: "She is not from our group; she is in a low group".

I did not understand what she meant by 'low group'. To some extent, I assumed the term 'low' meant not very smart in learning, but why were these girls behaving in this way?

While exploring further with the girls, and from the literature, I came to understand that pupils are divided into three ability groups according to their academic learning levels in some primary classrooms in England. A survey's analysis on grouping practices in England (Baines, et.al, 2003) showed that 44 per cent of primary classrooms (Year 5) and 70 per cent of secondary classroom (Year 10) appeared to organize ability based groups in Mathematics and English, as explained further (see Chapter 2, Section 2.6). This practice is known as setting within class to group pupils in various ability sets/groups (Hallam, 2007). Settings or ability based grouping is organized to differentiate teaching practices and match with the distinctive learning levels of pupils in classrooms (Ireson and Hallam, 2001).

Maria was from a low ability group and both of my nieces were in high ability groups, and therefore did not like to play with her. After hearing their conversations about their peers at home, I began to wonder about the classroom situation in which they worked and spent most of their time together. This curiosity inspired me to explore further into group work and social interaction among students in primary classrooms in England. Particularly while keeping the above-mentioned discriminatory remarks in mind, I was interested to discover what took place in the classroom when these pupils with low, high and average learning levels work together in groups?

I was familiar with constructivists' theories, mainly Vygotskian concepts of learning, through social interaction and creating proximal zones for pupils' learning and development (see Chapter 2, Section 2.3.2) in the classroom. As part of my MA course work I also got the chance to explore the implications of these constructivists' theories in Pakistani classrooms, during my practicum. During this time, I strongly proposed the interactive, group-based and pupil-centred teaching practices of developed countries, including the United Kingdom, as a model to be adopted in Pakistani classrooms. However, the aforementioned negative and discriminatory remarks of primary school children about their peers and their group work shocked my idealisation to some extent. It also increased my interests in exploring pupils' interactions in primary classrooms in England. I was particularly interested to explore how pupils, while having their distinctive identities (i.e. high, average and low

learners), interact with one another in order to achieve the purpose of shared group work in mainstream classrooms.

1.2 Primary classrooms in England / Context of the study

The practice of grouping pupils into three different ability groups, (i.e. high, average and low), has been in place in English state primary classrooms for the past few decades, as explained further in the next chapter (see Chapter 2, Section 2.6). The concept of assessing pupils' abilities and grouping them according to their innate intelligence emerged in the early the 1930s in the British primary educational system. Binet's work on human intelligence encouraged the perception of intelligence as measurable to classify pupils on the basis of their intellectual/cognitive abilities, and to provide their educational treatment accordingly in the school (Gillard, 2004). This idea that each child has a fixed level of innate intelligence which could be measured through tests has remained popular in the English educational system for many years, and still has a strong influence today (see Chapter 2, Section 2.6). The Hadow report published in 1931 recommended the application of psychological tests in education. The tests comprised pupils' assessments in the form of both written and oral tests in order to categorise them in "A" as highest, "B" as average and "C" as underdeveloped in their learning performances. The Hadow report (1923-1933) also suggests that all pupils are entitled to take an oral and written examination in order to determine their place in secondary schools. It supported the streaming of pupils into A, B, and C groups in primary schools (Gillard, 2008).

During the 1940s and 1950s, concerns were raised about the dangers of ability based selection within schools under the changed governing political party (Labour). The concept of intelligence as fixed/innate and labelling of pupils as high, average or low learners was challenged under the new educational system introduced by the Government (Gillard, 2008. p.10). Chitty (2007) mentions a report that was presented by the British Psychological Society, which advocated that pupils could enhance their cognitive abilities by taking influence from their environment. The report also questioned the validity of the eleven plus examination, and streaming practices emerged in the primary schools in England. Therefore, the report was considered as a milestone (Chitty, 2007, p. 03) which provided the foundations of the comprehensive education agenda in the 1960s.

During the 1960s, comprehensive reform was implemented throughout the country, although its implementation remained inconsistent across all state schools (Cox, 2011, p. 10). The application of predictive intelligence tests to recruit pupils for different schools matched with their IQ scores was regarded as invalid. Many educators and teachers were convinced that all pupils should be given an equal chance to learn and grow. By the mid-1960s, the head and class teachers encouraged mixed ability education to increase pupils' motivation and participation in their educational lives (Cox, 2011). At that time, the publication of the Plowden Report also enabled Local Education Authorities (LEAs) and primary schools to become comprehensive and freed from the restrictions of producing good results (Gillard, 2011). The system of streaming was replaced by child-centred approaches, informal education, and the flexible organisation of the classroom.

The Plowden report generally emphasized child-centred approaches and the individualisation of teaching and learning processes. Many teachers, especially the young ones, appreciated the Plowden legacy to enhance social justice in their classrooms (Cox, 2011). It recommended a combination of teaching practices to organize individual and group work in classrooms. It particularly suggested that pupils' groups should be based on their interests and needs which are transformed as they grow up, while supporting the Piagetian theory of children's development (see Chapter 2, Section 2.3.1 Chapter). The report justified that group work should be used as a tool to foster social skills among pupils as they should learn to take help from others. It should function as a teaching pedagogy to encourage pupils to realise that they are united with one another and should learn and enable others to learn while working as a group (Gillard, 2011). Teachers were free to design the curriculum and participate in classroom based research in order to develop their teaching practices. Their research related efforts were funded by the Government (Wyse et al., 2010).

Plowden's vision, despite promoting child-centred approaches, was not realised widely (Cox, 2010, p. 12). The research identified a few inconsistencies between the proposed child-centred theories and its practices. It was noticed that there were still a few classrooms with teacher directed, individualised, unchallenging teaching approaches and rigid time tables. In some cases the head teachers were still keen to keep records of their work rather than permitting pupils to learn independently. They placed the emphasis on preparing and designing colourful books to capture evidences of pupils' learning (Galton, 1987).

In the 1980s, the national government changed. The newly elected government questioned the autonomy of schools. The government introduced a state controlled curriculum which seemed to majorly emphasize upon raising educational standards and appeared to suggest differentiation as the best possible way to improve pupils' attainments in different subjects. The government's white paper (1997) mentioned:

Preparing all children for the challenges of life in the 21st century requires real progress and soon. For that purpose, challenging national targets for the performance are announced and it is expected from young children to reach the standards expected for their age in English and maths and these targets will be given priority in all policies affecting schools. (White Paper, 1997. p19)

We do not believe that any single model of grouping pupils should be imposed on secondary schools but we do make presumption that setting should be the norm in secondary schools and in some cases it is worth considering in primary schools. We want to see target grouping where pupils are grouped by ability, in organising classes to meet the different abilities of pupils. (White Paper, 1997. p38- 39)

The suggestion for practising ability groups was not directly commanded in the paper. However, the discourses articulated by policy makers seem to promote setting/fixed ability grouping as a signifier for academic high standards (Francis et al., 2016, p.07). Francis et al., 2016, p.38) cited a government's white paper "Excellence in schools" (HMSO, 1997) in which setting was particularly promoted to emphasize the focus on raising standards. In the same paper, mixed ability grouping seems to be less prioritised by highlighting setting as a more effective grouping technique.

Since its emergence, ability based grouping and its influences on pupils' academic and social development have remained part of educational research for several decades in western countries, including the UK (Francis et al, 2016). The forms of ability grouping (fixed and mixed) have had both constructive and destructive effects on pupils' learning and interaction. There is an extensive body of empirical research on ability grouping to identify fixed or mixed ability based groups as a best grouping practice to foster interaction among pupils (see Chapter 2, Section 2.6). Similarly, some of the other empirical research on pupil interaction has attempted to identify the

characteristics of effective group organisation through which interaction among pupils can be increased, as summarised further (see Chapter 2, Section 2.7).

Contrary to other researchers (Francis, et al, 2007, Hallam and Ireson, 2007, Hart and Drummond, 2014), I did not investigate the influences of a particular grouping structure on pupils' interactions to only advocate a single (either fixed or mixed) ability group as an effective grouping strategy to organize pupils' interactions. I also did not intend to define the characteristics of effective group organisation after studying casual effect relationships among various variables through running interventions or experiments (Baines et al., 2009, Saleh et al, 2005, 2007 and Gillies, 2003). In this exploratory small-scale research, I intend to explore the nature of pupils' interactions under any group structure as routinely organized by the class teacher in a primary classroom. My research was conducted in a mainstream state primary classroom (see Chapter 3, Section 3.3) in which ability based groups were being commonly practiced (see Chapter 4, Section 4.5). Therefore, I could not escape the notion of fixed and mixed ability groups while observing pupils' interactions and perceptions in my research. Particularly, the notions of ability based fixed and mixed groups appeared to be prominent while exploring pupils' perceptions of group work, and their placements in various groups organized in the particular classroom. My research has mainly aimed to explore:

- the nature of pupils' interactions during their routinely organized group work in a state primary school in England
- the nature of pupils' perceptions about their classroom based group work
- the links between various contextual, cultural and social factors which can influence pupils' interactions and their perceptions of group work.

To address these aims, my research intends to explore the following questions:

1. What is the nature of pupils' interactions during their routinely organized group work under ability based and other group structures in a primary classroom?
 - 1.1 Does the nature of social interaction among pupils change and transform from one to grouping structure to another, and if so why?
2. What do primary school pupils think about their group work?
3. What is the role of social, cultural and other contextual factors in influencing pupils' interactions and their perceptions of classroom based group work?

1.3 Structure of the thesis

The thesis consists of seven chapters. In the present chapter (*Chapter 1*), I explain the introductory part of the study to describe personal, academic and professional motives which have inspired me to conduct this research. I have also outlined the context, aims and research questions of my study in this chapter.

Chapter 2 contains the literature review on group work and social interaction among pupils. I review definition of group work and summarise constructivists' theories to elicit their links with pupils' learning and development through social interaction. I present an overview of empirical research to enlist various cognitive, social and moral benefits associated with group work. Afterwards, I mention the most general forms of group work organized in educational settings and reflect on the forms of group work commonly practised in mainstream classrooms in England. I attempt to highlight the effectiveness and drawbacks of grouping pupils having similar academic levels, or grouping pupils with diverse learning levels, as summarised in the existing empirical research. I also describe the influences of the basic organisational aspects of group work (i.e. addressing group structure, planning tasks, the teacher's role and pupils' group skills) on pupils' interactions highlighted in the recent empirical research on group work. After discussing the theories and empirical research on group work, I mention Bronfenbrenner's ecological theory as the main conceptual framework. I explain how the application of ecological theory has helped me to explain the relationships between pupils, their immediate and wider context, which appeared to influence their interactions and perceptions of classroom based group work.

Chapter 3 explains the methodology of my study. In this chapter, I elaborate on the research approach and design of my study. I explain the research setting, participants, research instruments, data collection processes and procedures that I have used to collect data from the field, and later on to analyse the gathered data after my field work. At the end of this chapter, I explain the ethical procedures which I adopted before, during and after my field work, in order to gather data relevant to the focus of my research while participating in the daily activities of a classroom.

Chapter 4 is a description and explanation of the particular school and classroom context to provide a detailed account of the characteristics of the context in which I participated to conduct this research. I describe the overall physical, educational and social characteristics of the school where I conducted my field work. I describe the

physical settings of the classroom in which I carried out my observations and interviews to explore the nature of pupils' interactions and their perceptions of group work. I explain the timetable, as well as the teaching and learning activities that were organized in the particular classroom while observing and interviewing my research participants.

Chapter 5 presents the observational data to explain answers for the first main question, and the sub-question of my research. I describe empirical examples to analyse the nature of pupils' interactions during their routinely organized group work inside and outside the classroom.

Chapter 6 contains interview data to explore answers relevant to pupils' perceptions of group work (the second question of the study). I reflect on the pupils' responses which were recorded during their interviews in order to explore their thinking about the organisation and composition of group work in their classroom.

Chapter 7 discusses the findings of both observational and interview data in light of Bronfenbrenner's ecological theory to reflect on the role of the various contextual factors that influence pupils' interactions and their perceptions. I describe the conclusions derived from discussing the findings of both observational and interview data. Afterwards, I explain the implications of my research towards theory, policy and pedagogy, and future research on pupils' interactions during their group work. I conclude my thesis by enlisting a few limitations of my study which can also be used as future recommendations for researching social interaction and group work among pupils in mainstream primary classrooms.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter describes the contemporary literature on pupils' interactions and group work. I review the definition of group work, its organisation in educational settings, theoretical knowledge and empirical research on social interaction, forms of grouping structure and issues related to the organisation of group work in an educational context in the following structure:

Section 2.2 describes the concept of pupils' learning and development through social interaction during their group work.

Section 2.3 explains theoretical models of learning and development which propose social interaction as a means to perpetuate pupils' cognitive and social development. It analyses the theories of Piaget and Vygotsky in order to explain the various processes that children can involve while interacting with others to enhance their learning and development.

Section 2.4 summarises empirical research to explain various educational, social and moral benefits, which can be achieved by organising group work as a pedagogical practice to perpetuate social interactions among pupils in the classroom.

Section 2.5 explains the more renowned/popular forms of group work which are generally organized in the educational system to encourage social interaction and active participation among pupils, as claimed in the theory and empirical research of group work.

Section 2.6 summaries the organisation of pupils' interactions in state primary classrooms in England (context of the study). It references various empirical studies to reflect on the role of ability grouping in influencing social interaction among pupils in the classroom. This discussion on its supported as well as non-supported role in encouraging pupils' interactions appears to identify some concerns regarding the use of group work as an instructional strategy. It highlights the importance of careful organisation of group work in order to establish effective social interaction among pupils, as proposed in the theoretical and empirical knowledge of group work.

Section 2.7 describes recent trends in empirical research on pupils' interactions which highlights the role of organisational perspectives in influencing the nature of interaction among pupils. The influences of organisational structures appear to

emphasize the importance of context to make pupils' interactions successful. It also highlights the importance of researching relationships between pupils and their contexts, which appears to be an under-researched field in the overall research on pupils' interactions and group work.

Section 2.8 proposes the ecological system theory of Bronfenbrenner as the main conceptual framework of my study. It summarises basic theoretical notions of ecological theory and reflects on the role of ecological theory in assisting me to uncover relationships between pupils and their contexts, and how these relationships can influence pupils' interactions and perceptions of group work while addressing the main aims (see Chapter 1, Section 1.3) of the study.

2.2 Group work

Teaching in small peer based groups has been used widely to enhance the active participation of pupils in educational settings for many years. Group work is defined as a way of grouping pupils in small teams or in groups in order to enable them to work together to gain common goals (Galton and Hargreaves, 2009). It is a coordinated activity that attempts to construct and maintain a shared conception of a problem (Rochelle & Teasley, 1995, p. 50). Pupils in groups are encouraged to work, think and make sense of the given activities together by communicating and discussing in groups (Mercer, 2000, p.1). They are expected to cooperate or collaborate with their peers/partners by sharing the task, assuming that pupils will learn to work with others in wider communities through effective collaboration (Lazarowitz, 2008).

The emphasis on using group work as an educational strategy emerged in the 1970s when research (Johnson and Johnson, 2002) identified that group work, social interaction and collaboration can be an effective means for enhancing pupils' achievements to maximise their learning opportunities. Sharan (1980) claimed that group work can promote high levels of cognitive functioning among pupils. The interpersonal exchanges among group members help them to clarify their misunderstandings, and also helps them to enhance problem solving skills. Pupils adopt/practise help giving behaviours which can help them to develop positive self-images. Pupils can learn to trust others, particularly their peers, to ask or to be asked for help in their classroom.

2.3 Theories of learning and group work

The theoretical developmental knowledge which proposes relationships between group work and pupils' cognitive and social learning is believed to be based on two famous learning theories of Piaget and Vygotsky (Fawcett and Garton, 2005). Piaget's theory of cognitive development and Vygotsky's theory of social learning and development, also known as constructivists' theories (Slavin, 2014), remain influential in the current educational system. The core idea promoted by these constructivists' theories is about the pupils' active role in the learning processes. The theories assume that pupils build cognition and construct their knowledge constantly while learning under child-centred learning conditions. I explain each theory in the following sub-sections:

Section 2.3.1 explains the contributions of the Piagetian theory in explaining the processes of child development. It reflects on the role of cognitive processes to show how Piaget has linked peer interaction with pupils' cognitive development and suggested particular (similar ability based) grouping structures to maximize their interaction in group work

Section 2.3.2 explains Vygotskian views on child development to explain the cognitive processes that pupils involve while participating in group-based activities.

Section 2.3.3 reflects on the influences of constructivists' theories of Piaget and Vygotsky on group organisation. I explain how both theorists, despite having different perspectives, play an important role in explaining the elaboration of children's cognition through social interaction. The theories also appear to provide a base for empirical research on group work (see Section 2.4), in which the benefits of group work on pupils' cognitive as well as social development are highlighted.

2.3.1 Piaget's model of pupils' learning and development

Jean Piaget (1896-1980) was a biologist, who originally studied Natural Sciences at university, but later on developed interest in studying psychoanalysis and intelligence testing. His research work in developmental psychology is best known to understand the cognitive as well as psychological development of children (Gray and Macblain, 2012). Piaget's work is mainly based on children's observations. He observed children's actions and conversations after engaging them in his experimentally designed activities.

Piaget proposes that children's brains are developed in different but dependent and inflexible stages (Meggitt, 2012). Children learn and are able to perform particular tasks after gaining cognitive and psychological maturity at a maximum age level. Piaget talked about different transitions in child development known as new areas of development (Atherton, 2013), taking place gradually at 18 months, 7 years, and 11 or 12 years.

The developmental transitions are known as sensory motor (0-2 years), pre-operational (2-7 years), concrete operational (7-11 years), and formal operational (11 years onwards) stages of development. Piaget asserts that children in their first months of life are incapable of thinking. They engage in reflexive movements. Children move from reflexive movements to more experimental problem solving skills in the advanced stages of their development. After moving to a more matured era of both physical and cognitive development, children's thinking continues to develop. They participate in imaginative play and learn to use language. At the age of 7 or more, children learn to think and use logical rules to solve common problems in their everyday lives. At the formal operational stage, considered as the last stage of cognitive development, children start thinking independently, logically and flexibly at a higher level. According to Piaget, the development occurs in a sequence mode which is fixed, and children (no matter how bright they are) are not capable of understanding before reaching a particular stage (Elliott et al., 2000).

2.3.1.1 Piaget and group work

With respect to learning through social interaction, Piaget asserts that children are born with a tendency to interact with the world and make sense of their surroundings. According to him, the human brain organizes and processes information in different cognitive patterns/structures termed as "schemas" in the Piagetian theory. Schemata guide peoples' interactions with their world, as they help to pick and sort outside information after assimilating it with existing knowledge. If new knowledge contradicts already learned knowledge, it modifies the understanding to adjust or absorb the new information through the process of accommodation. Piaget gives importance to the manipulation of physical environments to create balance between existing and new information ,which in return may enlarge cognition (Atherton, 2013).

Piaget suggested that peer interaction promotes cognitive conflicts. It helps pupils to highlight differences between their own and other's knowledge through creating disequilibrium (Graton and Fawcett, 2005, p.158). Piaget emphasizes the importance of confronting pupils with experiences or data unmatched with their existing knowledge. He considers that change in information encourages pupils to argue with others due to having different perspectives, and such arguments with peers result in advancements in pupils' cognitive abilities. Piaget proposes that pupils should be grouped with others of equal ability and cognitive footing (Meggitt, 2012) in order to encourage their participation and sharing of thoughts in a friendly environment. According to him, grouping children with adults can hamper pupils' interactions and may not generate a friendly and open confrontation of ideas. Therefore, research advocating the benefits of fixed ability groups (see Chapter 2, Section 2.6.1) seems to support the Piagetian idea of constructing interaction among pupils having similar cognitive abilities. It appears to support the organisation of similar fixed ability based grouping to encourage socio-cognitive conflicts among pupils to enlarge their cognitive abilities (Howe et al., 2007).

The Piaget learning approach stresses upon the active role of interaction in pupils' learning which invites them to organize, interpret, learn, and use the information learned from the environments (Corsaro and Eder, 1990). However, it prioritises individual and interpersonal levels of development by ignoring collective intelligences generated as a result of interaction between pupils and their environments. The emphasis is limited to the individual development. The importance of the cultural patterns and systems which can influence pupils' interactions with others and with their environments seems to be ignored. This role of environment and others in the process of pupils' interactions is presented by Vygotsky, as explained in the subsequent section.

2.3.2 Vygotsky theory of social learning

Lev Semionovich Vygotsky was a Russian psychologist whose work became influential in North America during the 1970s, and is still considered as a powerful force in recent developmental psychology (Slavin et al., 2009). Vygotsky believes that learning results in mental development, and both learning and development are inseparable. He places emphasis upon the strong relationship between children's thinking and their social and cultural contexts. According to him, social, historical and

cultural contexts of children play a vital role in shaping their minds. Children's development is the result of various social and cultural processes that they experience in certain social settings and contexts (Wertsch, 1985). Vygotsky proposes that learning results in development. Children receive information through interacting with others, and the information gained from others can be internalised by children in order to think and solve their problems independently (Slavin et al., 2009).

2.3.2.1 Vygotsky and group work

The key ideas of Vygotsky's theory highlighting links between social interactions and pupils' learning are explained as follows:

Learning through social interaction: The sociocultural approach emphasizes the interdependence of social and individual processes in the co-construction of knowledge (Vygotsky, 1978). According to Vygotsky, any psychological function appears in two phases of the development. At first, it appears between people as an inter-psychological category, and then within the individuals as an intra-psychological category (Vygotsky, 1978, p.57). The sociocultural approach of cognitive development asserts that people have a tendency to internalise external objects and skills while interacting with others (Wertsch, 1985). It gives foremost importance to the dialogues which take place among people. These discourses may enable people to internalise the external information given by others, particularly by the experts, and later on assist them to elaborate their own thinking (Ferryhough, 2008).

Learning through social interaction is a fundamental idea of Vygotskian perspectives which is implemented in forms of collaborative and cooperative learning in the recent educational system (Jarvis, 2005). Collaborative learning can engage pupils in the process of cognitive restructuring (Webb, et. al, 2009, p.02), through which they restructure their knowledge by talking about the given academic activity or task. Pupils express their ideas, identify misconceptions, seek and quest for new information, while conversing with others. They internalise the information by linking the new concepts with the previously learnt concepts as a result of talking and discussing the particular activity.

The Vygotskian approach of learning through interaction suggests that interaction should take place between more and less competent to make it more helpful for pupils' cognitive elaboration (Rogoff, 2003). The help of the competent person enables their less competent peer to understand the task and carry on the activity. The process of

interactional change in cognitive development is termed as the “zone of proximal development” (Cole, 1985, p.86) in the socio-cultural approach.

Zone of proximal development (ZPD): The zone of proximal development is one of the key themes of collaborative learning (Cole, 1985). It describes the distance/gap between what a child can do alone and what he can do with help of others. It refers to the particular interaction taking place between a more competent and a less competent person, which can facilitate the learning of the less competent. Therefore, Vygotsky emphasizes that learning opportunities and instructions should be coordinated with both actual (existing) and proximal (advance and further) learning levels of pupils in order to enhance their cognitions (Elliott et al., 2000).

Vygotsky proposes that pupils can improve their understanding and comprehension by engaging in mediation tools including languages, signs, symbols and texts (Daniels et al, 2007, p.283). Pupils interact and collaborate with experts and more competent peers by using various mediation tools and sign systems to transform their thinking. However, research on collaborative learning also claims that grouping pupils as pairs of expert and novice does not always assure that they will learn from one another and achieve the target of social interaction (Dillenbourg et al., 1996). Whilst using collaborative activities, it can only be expected that pupils’ learning will be enhanced through social interaction. In this regard, Slavin et al. (2009) suggest that in the case of organising group work between more and less academically competent peers, teachers are required to plan and structure interaction among pupils to make it consistent with the proximal zones of their development. The context of pupils’ interactions maintains a significant room (Gillies, 2008) and requires to be modified to accelerate opportunities for pupils to learn from other peers during their interactions.

Scaffolding: Scaffolding is another key idea of Vygotsky’s theory which builds interaction between the expert and novice, particularly between a child and adult. In scaffolding, the more competent peers or the class teachers initially assist the less competent peers. However, the given support gradually becomes limited with the passage of time to enable the less competent to understand the task independently (Slavin, 2014). Therefore, it is defined as a temporary intellectual support and as an interplay of consciousness and control (Bruner, 1985, p.24). The processes of scaffolding enable children to advance their cognition in the presence of tutors or

aiding peers. The given support remains as consciousness until the child learns to control that consciousness by practicing the newly learnt skills independently in the absence of their tutor. According to Cole (1985), when novices/less capable pupils are unable to do the given activity independently, the more capable peers support them in their learning. Later, with some practice, the novice/less capable peers develop competency to perform activities independently as a result of their interactions with more capable peers.

In educational settings, this idea of scaffolding has emerged in the form of teachers' efforts to break tasks down into smaller parts in order to support the understanding of their pupils. The function of scaffolding can sometimes be performed by pupils (Franke et al., 2015). The authors researched primary age pupils and claimed that pupils scaffolded their peers by using language in a dialogic way (Franke, et.al, 2015) in order to discuss and solve shared activities. They seemed to involve social interaction to enhance their understanding about the given task. While learning the task as a joint activity, pupils appear to bridge gaps between actual and potential levels of their development.

Language and thinking are connected: Vygotsky considers thought to be an internalised form of language (Meggitt, 2012, p.185). Language plays a major role in constructing people's thinking when they interact with the outside world. People use language to communicate with others and later on, language is internalised to control their inner thinking (Bruner, 1978). In Vygotskian perspectives, thought and speech are not unrelated processes as advocated in Piagetian views. The connection between language and thinking originates, gets changed and grows during the evolution of thinking and speech, side by side (Vygotsky, 1986, p.119). Therefore, the relationship between thought and speech in itself is a process which changes, develops, grows and fulfils a purpose. In educational settings, Vygotsky's notion of internalisation is used to support pupils' learning through their interaction with others. Pupils involve dialogues while working on joint activities. These dialogues are internalised by the pupils and can help them to reconstruct their understanding and existing knowledge.

The context and peer interaction: The context is given specific consideration in the Vygotskian theory. Vygotsky emphasizes accessing the cultural and social settings in which children interact with others in order to understand their cognitive and psychological development. Vygotsky proposes that an appropriate social world is

necessary to shape human mental functioning (Bruner, 1985). In the Vygotskian view, context is a function of joint actions and understandings of the communicators (Edward and Mercer, 1989, p. 92). The considerations for social and intermental origins of individual thoughts are regarded as special features of Vygotsky's theory to develop a full understanding of children's thinking and knowledge during their interaction with others. According to Vygotsky (1978), it is not enough to only concentrate on the product of children's development, we need to study all of the transforming processes that occur in children's mental functioning to understand their development (p.64). Vygotsky asserts that a particular mental activity cannot be viewed in isolation as a single mental achievement. It demands us to analyse and explore all the transformational processes engaged by children during their learning.

Due to having an emphasis on social context, the Vygotskian approach seems to present learning processes as a joint initiative between teachers, learners and assigned learning activities in educational settings (Mercer and Littleton, 2007). It encourages us to assume that classroom organisation, adults and peers, with whom pupils interact while participating in collaborative learning processes can play a crucial role in determining their development and thinking (Gredler and Shields, 2008). Therefore, teachers are required to create a shared framework of learning while organising interaction based learning joint activities (Mercer, 2002). They should enable pupils to participate in appropriate, group based, structured discussions to build a shared understanding of the given task through interacting with others effectively.

2.3.3 Theories of Piaget and Vygotsky and the organisation of group work in educational settings

In the above section, I have summarised the basic theoretical notions of both Piaget and Vygotsky's theories which help us to understand the processes of social interaction and their influences on human development and learning in general ways. In this section, I explain how both theories support group work in educational settings by taking divergent perspectives to explain links between social interaction and pupils' cognitive and social development.

Piaget argues that language does not create thinking, but facilitates its application during interactional processes (Meggitt, 2012). He acknowledges the role of peer interaction and asserts that language facilitates people to bring about a change in their thinking and cognitive abilities. Piaget thinks that the change in pupils' cognition only

occurs if they interact with others actively, while reflecting on their own and others' understanding as explained above. The purpose of active interaction can be achieved if pupils are interlinked with others on an equal basis, through which nobody can dominate the process of interaction that takes place in case of interaction between expert (adult or competent peer) and novice (Meggitt, 2012). Therefore, Piaget suggests that pupils should be encouraged to argue on one another's perspectives openly (Gredler and Shields, 2008). Based on Piagetian views, it is recommended that pupils can be trained both cognitively and socially in order to enhance their mental readiness for working in groups before operating group work in classrooms, as evidenced in empirical research summarised further (see Chapter 2, Section 2.4).

Piaget asserts that a child's ability to think and reason is limited to their own ability (Piaget, 2002). According to Piaget, children learn to communicate and argue with one another after reaching a certain stage of their development. Therefore, Piagetian views on child development may not prove helpful to understand the role of language in building children's understanding. (Donaldson, 1978).

Compared to Piaget, Vygotsky's theory acknowledges the role of language in developing children's understanding more convincingly. Vygotsky considers language as a powerful mediation tool which plays a critical role in cognitive development (Vygotsky, 1986). Pupils' verbal interactions facilitate their engagements in high level mental processes (Graton and Fawcett, 2005, p.160). These interactive processes among pupils may enable them to re-organize and restructure their knowledge and thinking which they are unable to do while learning any task alone as an individual. Therefore, proponents of Vygotsky's theory claim that children can learn beyond their existing abilities and can be expected to perform certain cognitive behaviours after interacting with others.

The relationship between social interaction and pupils' cognitive and social development has been realised in both theories of Piaget and Vygotsky. However, both theories appear to take on different perspectives to explain the processes of social interaction and their facilitation in advancing pupils' thinking and developments. Piaget considers group work as a means of providing social context to pupils in which they can coordinate their ideas with alternatives. This coordination is labelled as a pre-condition for development by Piaget (Piaget, 1932 in Howe et al, 2007). Whereas, In Vygotsky's theory, the emphasis is on joint construction and a shared understanding

of the task, which can be achieved by enabling pupils to interact with others to learn from one another's perspectives (Slavin et al, 2009).

According to Mercer and Littleton (2007), theories of social interaction can be traced back to Dewey's philosophies that children should actively participate in the teaching and learning processes. Mercer and Littleton (2007) mentioned a few empirical studies (Doise and Mugny, 1984, Perret-Clermont, 1980 cited in Mercer and Littleton, 2007), which observed pupils in pairs and small groups to evaluate the effectiveness of pupils' interactions on their individual performances. According to Mercer and Littleton (2007), the research on social interaction between the 1970s and 1980s appeared to follow Piagetian perspectives of socio-cognitive conflicts, since Piaget recognises that peer interaction is mainly significant for the development of thinking and reasoning abilities among children (Mercer and Littleton, 2007, p.13). Therefore, research following the Piagetian perspective emphasises that pupils only having the same cognitive capacities can enhance their cognition by sharing their own and discussing others' perspectives. In the 1990s, when the Vygotskian theory began to be applied in research on group work, the emphasis upon the role of social and interpersonal context in influencing the nature of interaction among pupils was highlighted. Like Piaget, Vygotsky also considers social interaction as a core aspect of children's development. However, he considers learning through social interaction as a constructive process and emphasises on understanding both the cognitive and social processes children involve while interacting with others.

Despite having differences of philosophical underpinnings, both the theories of Piaget and Vygotsky acknowledge social interaction as an effective strategy to enhance pupils' learning and development in educational settings, as evidenced in various empirical research studies explained in the subsequent section.

2.4 Empirical evidence proposing relationships between group work and pupils' cognitive and social development

Group work can be advocated for its countless social, educational and moral beneficial effects on academic, social and personal developments of the learners in classrooms. Ogden (2000) proposes that through group work, pupils learn to manage their joint efforts. They contribute reciprocally in joint efforts to undertake the shared task together as a group. In groups, pupils are given the chance to talk and think together (Mercer, 2013, p.151). They may plan, act, reflect and re-plan their activities to solve

instructional problems. They seem to involve in self and social regulation (Jarvela and Jarvenoja, 2011) to coordinate their efforts as a group to accomplish the given task. In this section, I provide evidence from the empirical research to account for the benefits of pupils' interactions towards their academic and social learning such as:

Section 2.4.1 summarises evidence provided by empirical studies to explain how pupils can have opportunities to enhance their cognition by participating in group-based activities.

Section 2.4.2 mentions social and moral benefits identified through research, which pupils can gain while interacting and working with others in groups.

2.4.1 Cognitive benefits

Interaction can construct a shared conceptual space among individuals and can enable them to use various external mediation tools including language, situation and activity. Roschelle and Teasley (1995) analysed 15 years old students' interactions during their joint/collaborative group work. The participants worked on a collaboratively designed computer based activity for 45 minutes during their Physics lesson in a summer course. They were interviewed afterwards to reflect on what they had learned through participating in collaborative activity. The researchers developed a framework after drawing ideas from pragmatics, conversational and protocol analysis to examine how communication constructs a joint problem space between two participants working as one pair. Researchers observed that both participants seemed to use coordinated language and action to establish shared knowledge, recognise any divergence from shared knowledge, and resolve any misunderstanding to maintain joint communicative exchanges. These shared efforts helped both participants to gain satisfactory results and accomplish the given task as a shared joint activity (Roschelle and Teasley, 1995, p.94).

Social interaction can improve pupils' reasoning strategies and their problem solving abilities (Fawcett and Graton, 2005, p.159). The author recruited 125 children from five state primary schools in Western Australia to examine their interaction with peers having greater and lower cognitive abilities. It was hypothesized that children with lower cognitive ability would show greater cognitive achievement while working with peers that have greater cognitive abilities, compared to their peers who would work with pupils having similar or lower cognitive abilities in the post tests. Children were matched to a partner resulting in 10 pairs of high/high, 10 pairs of low/low and 20

pairs of high/low scorers. The children were involved in two sorting tasks to sort blocks individually to a maximum of 14 possible sorts. The blocks comprising three colours, two shapes, two sizes, and two widths were used for the pre- and post-tests. The children's initial sorting ability was assessed individually as a pre-test. After attaining the children's individual scores as a pre-test, they were assigned a partner from the same class, as proposed in the research experiment. The pairs of children were then divided into experimental and control groups to work on the same activity under experimental conditions. Researchers monitored the children only to identify the extent to which they were following instructions, and to ensure that no other interventions were carried out during the experiment.

One week later the children were reassessed in the post-test to evaluate whether collaboration facilitated any improvements in children's performances. Analysis showed that the children who worked with partners during the experiment seemed to get high scores as compared to their peers who worked individually in the control group. The analysis also showed that the children with lesser cognitive ability showed a significant improvement in their performance compared to their peers who worked with peers having similar cognitive abilities or worked individually. Based on these findings, Fawcett and Garton (2005) concluded that children can be exposed to higher levels of reasoning when interacting with their peers. However, authors emphasized upon the importance of creating a supportive classroom environment for boosting children's cognitions through group-based learning activities.

The performance of the group is better than that of its best members (Laughlin et al., 2006). Laughlin and associates involved 760 university students in an experimental inquiry. Two hundred students were asked to solve two successive letters-to-numbers problems as individuals, 80 as 40 pairs, 120 as 40 three-person groups, and 160 as four-person groups. Laughlin et al., (2006) claimed that two, three and four person groups appeared to demonstrate fewer trails to solutions, and more letters per equation, compared to their counterparts who were regarded as best but completed the given activity individually as instructed in the experiment. They observed that students discussed common initial preferences and shared information to make excellent decisions while working in groups. Whereas, single members due to working on similar tasks individually could not involve such critical discussion to validate their preferences, and as a result exhibited more trails to find the correct answer.

Collaborative learning approaches in the form of pair or group work can enhance pupils' achievements as compared to the whole class teaching. Pupils are more likely to ask questions and provide explanations to one another while learning in groups (Shachar, 2003, p.103). The author involved pupils with various attaining abilities (i.e. low, average and high) in an experimental research to find the influences of group work on their academic performances. Shachar (2003) identified that pupils showed a greater increase in their post-test's performances while learning collaboratively in groups, as compared to whole class teaching. The whole class's instructional methods involved teachers' talks and enabled pupils to follow prescribed instructions in order to complete the given task (Cazden, 2001). Teachers plan lessons uniformly for all pupils of the class and seemed to ignore the individual differences and distinctive learning processes of their pupils. Whereas pupils regulate their activities and learning processes independently, without the over-interference of their teachers while working in groups.

Teaching in small groups can increase pupils' understanding about the given task by allowing them to exhibit cognitive behaviours (Baines et al., 2008). The results were reported from one year long experimental evaluation of their classroom based intervention programme, with key stages 1 and 2 at two different sites in England. From key stage 1, 19 classes with 474 pupils for the experimental group, and 18 classes with 506 pupils for the control group were chosen. From key stage 2, 32 classes with 849 pupils for the experimental group, and 40 classes with 1,027 pupils for control group were chosen to run group based interventions at both research sites. Pupils' attainment levels, classroom behaviours and motivation were assessed to compare the results of the experimental and control groups to evaluate the effectiveness of the proposed interventions. Teachers were trained beforehand to incorporate the suggested interventions, comprised of structured group based activities, into their lessons for experimental groups. The control groups were mainly instructed while using whole class teaching and individual work for one academic year.

The evaluation phase began and lasted for the whole subsequent academic year, during which it was noticed that pupils plan, think and discuss their ideas with one another in groups (Baines et al., 2008). Group members shared different perspectives on a single activity which enabled them to exchange their knowledge. Pupils seemed to have greater opportunities for describing, explaining and manipulating phenomena

to stimulate their conceptual knowledge in the case of participating in collaborative learning activities. Whereas, pupils taught through whole class teaching and individual work did not have enough opportunities to gain such cognitive benefits, due to not having interactions with others.

Webb and Mastergeorge (2003) show that pupils involve social interaction to explain, justify and reflect on one another's suggestions. They adopt help seeking and help giving behaviours to form mutual support and to facilitate their participation as a group. The authors conducted this study with four seventh grade classrooms, through which pupils were made to work in small groups in mathematical lessons for one semester. Authors introduced pupils with help-giving and help-seeking behaviours in order to understand the learning task before putting them into groups and observing their work. The results indicated that pupils appeared to provide elaborated help to one another which enhanced the processes of cognitive restructuring among pupils and thus increased their post-test performance.

Pupils can be stimulated to grasp new dimensions of knowledge through participating in a group based learning activity. They can identify knowledge gaps in their own understanding in light of the various perspectives contributed by their peers on the given task. While reflecting on his seven studies regarding the role of cooperative learning activities in affecting pupils' learning, Ross (2008) acknowledges that pupils can learn to organize and integrate different viewpoints to achieve a common agreement due to working collectively in groups.

Ross (2008) identified four instructional challenges which can positively affect the nature of cooperation among pupils during their group work. These instructional challenges include the social climate of the classroom, establishing reciprocal roles among pupils, effectiveness of direct teaching and teacher interventions. Ross (2008) suggests that teachers can provide support to pupils' group work by generating high quality explanations and generic prompts in their group discussions. They can encourage questioning and deep cognitive processing among pupils by enabling them to think and discuss learning tasks in different ways while working in groups.

In this perspective, King (2008) illustrates that group members are required to think analytically rather than merely reviewing the information to increase their learning after participating in group work. They are expected to achieve cognitively advanced goals while working in groups and other forms of collaborative learning. In group

based learning environments, pupils can be expected to gain a deeper comprehension of the learning material, construct new knowledge, solve problems with more than one possible answer, create original ideas and make sophisticated decisions (King, 2008, p. 74). King (1994) reported a study conducted with fourth and fifth graders in one elementary school. 28 pupils from fourth grade, and 30 pupils from fifth grade, were randomly assigned to three different group based learning situations. The first situation was a guided questioning explanation to promote pupils' comprehension of the given activity. It was used to guide pupils' group discussions by allowing them to use questions relevant to the given activity. The second situation comprised of experience based questioning in which questions were used to promote pupils' thinking of their experiences or working with others. In the third situation, pupils from the control group were only engaged in unguided questioning. Pupils' discussions were videotaped to record their questions and verbal interactions. Moreover, pre- and post-lesson comprehension tests were administered to compare the influences of lesson-based, experience-based and unguided questioning on learners' comprehension of the particular activities during their Science lessons.

The results showed that learners guided through both lesson and experience based questioning outperformed their peers from the control groups while understanding their lessons. The use of guided questioning appeared to serve as cognitive prompts or intellectual scaffolding to stimulate discussion among learners, which as a result helped them to enhance comprehension and retention of the presented activity. Therefore, the author proposed guided reciprocal questioning as a strategy to help teachers to structure interaction to promote self-regulated learning among pupils during their group work.

2.4.2 Social and moral benefits

Interaction with others can also enhance pupils' social and moral development, and group work is considered as an ideal platform to teach pupils to develop their social and emotional skills (Battistich and Watson, 2003). In a review of research on cooperative learning in early childhood education, Battistich and Watson (2003) highlighted the importance of developing social and emotional skills during the early years, which as hypothesized by authors can support pupils' group based skills in their educational lives later on.

Battistich and Watson (2003) regarded working in groups as a crucial experience for developing pupils' social, moral, intellectual as well as cooperative skills. While reflecting on the findings of empirical studies held between 1981 and 1994, Battistich and Watson (2003) revealed that working in groups can support pupils in developing their social skills, and can create opportunities for pupils to enhance their academic success by interacting with peers competently and positively. Pupils' abilities to interact competently and positively with others become crucial to achieve success in group work. Therefore, teachers can advise young children to seek help from one another, show respect to others and their opinions by using various social and emotional competencies, interests and interactional styles, while organising group based learning environments for younger children (Battistich and Watson, 2003).

Howe and Rithchie (2002) examined narrative examples from early childhood classrooms aiming to explore strategies for teachers to foster positive social interaction among younger children. Their analysis shows that the academic learning environments of the classroom become disruptive if pupils do not exhibit positive interactions towards their peers. Therefore, Howe and Rithchie (2002) encouraged teachers to sharpen the positive interpersonal, communication and developmental abilities of their pupils while implementing collaborative learning activities. Teachers were advised to set clear goals of the activity and space for young children to reflect on their learning experiences while generating social interaction among them.

To further emphasize the importance of social development through group work, Tolmie et al. (2010) suggest that cognitive and social gains associated with group work can be enhanced by providing pupils with initial relational and communicative preparations. In their study, 575 students in 24 different classes from urban and rural schools were surveyed in order to identify whether group work leads to improved classroom relations. Researchers conducted interventions to investigate their influences on pupils' social skills while working in groups. The interventions were comprised of different group based skills to orient pupils and their teachers to the various cognitive and social benefits of working with others in groups. Pupils' interactions and teachers' ratings of their group-work skills were recorded to explore the effectiveness of the proposed interventions. The analysis revealed that there was a significant increase in pupils' relations with peers due to working in groups. One of the important findings of the survey showed that optimal relational/interpersonal conditions appeared to be significantly linked with both the cognitive and social

development of pupils. These skills can be enhanced through training pupils in various interpersonal skills. Authors highlighted the importance of teaching various social and communicative skills to pupils, which may enable them to solve interpersonal, social and emotional problems while participating in group based learning activities.

Pupils can learn positive attitudes and pro-social values after participating in group work (Gillies, 2003, p.36). Based on empirical data gathered from two studies, Gillies (2003) identified that when pupils with diverse learning needs are placed at one place to interact and work with others in groups, they can learn to listen to others, show respect to others' perspectives, and share ideas and resources by willingly interacting with others. Pupils can exercise various communicative skills, demonstrate various interpersonal skills and promotive interactions towards their peers while working on the assigned task as a team. Gillies (2003) recognises group work as a learning strategy to increase pupils' social development. However, he stresses upon teachers to monitor and facilitate pupils' group work by teaching them social skills of an advanced level to successfully work with others in groups.

According to Gillies (2003), promotive interaction among pupils can affect the success of group work. Promotive interactions can be defined as individuals' actions of listening to peers actively, encouraging and facilitating their efforts, and providing feedback to assist their understanding (Gillies, 2003, p.37). Therefore, teachers should raise their pupils' awareness of various social competencies in order to regulate their emotional experiences, and to exhibit effective responses towards their peers while working in groups. Pupils can be assigned various roles during their group work to make them realise their personal commitments. They can be trained on how to use the above explained communicative and interpersonal skills to enhance their social development through working in groups in the classrooms (Gillies, 2003).

The effects of pupils' interactions on their social, as well as academic, development have been increasingly researched in last two decades (Gillies, 2014). In educational settings, pupils work together in groups to increase the knowledge and understanding of themselves and of their peers. They seem to sharpen their social development by exercising various communication and interpersonal skills to help others and to gain help from others while working in groups. However, as the above elaborated research studies show, the benefits of group work can be achieved thoroughly by training

pupils in various interpersonal skills and planning of tasks before operating group based learning activities in educational settings.

2.5 Ways of organizing group work in educational settings

In the above section, I have reviewed a range of empirical studies which highlight various cognitive and social benefits that pupils can gain through interacting with others during their group work. In this section, I explain some forms of group work which are generally organized in educational settings to enable pupils to gain the above-elaborated cognitive and social benefits through their interactions with others.

In educational settings, group work is organized and structured in different ways, which may affect the nature of interaction among pupils. The primary aim of group work should be to stimulate pupils' thinking and to sharpen their communicative skills, which to a large extent is dependent on the organisation of the group work (Galton and Williamson, 1992). In the middle of twentieth century, schools were encouraged to promote pupils' interests and participation in classrooms while taking influences from child-centred approaches (see Chapter 1, Section 1.3). To meet this purpose, it was obligatory for schools to encourage socially friendly educational environments for pupils by establishing interactive educational activities, including group work (Gillies, 2003). Galton and Williamson (1992) mentioned their survey held during 1976 and identified that only two out of 58 classrooms were set up in rows, while the remaining 56 classrooms were organized in group seating arrangements to encourage pupil participation in the classroom.

Galton (1987) through a famous study *The Oracle* (Observational Research and Classroom Learning Evaluation Project 1975-80) summarised the common forms of group work existing in classroom settings, such as:

Table 1: Classification of different grouping arrangements in primary classrooms

Type	Task demand	Intended outcome	Example
Seating Groups	Each pupil has a separate task	Different outcomes: each pupil completes a different assignment	Writing stories on themes chosen by the pupils
Working Groups	Each pupil has the same task	Same outcome: each pupil completes the same assignment independently	Mathematics worksheet
Cooperative Groups	Pupils are separated but are given related tasks	Joint outcomes: each pupil has a different assignment	Making a map
Collaborative Group	Each pupil has the same task	Joint outcome: all pupils share the same assignment	Problem solving: discussion on social or moral issues

Galton and Williamson (1992) classified grouping structures that can be applied in the classroom to group pupils to work together. The organisation of each structure is exemplified with explanations of varying natured lesson or activities given to the pupils, such as:

- **Seating groups.** Pupils just sit together in groups. They work on a similar theme, but do not work together as a group.
- **Working groups:** Pupils are given the same tasks which may enable them to consult with others in working groups. However, the major priority is given to the individual performances of pupils, which can minimise overall cooperation among participants.
- **Cooperative groups:** Pupils are given similar tasks in the form of individual assignments to work on, which can give pupils opportunities to learn from others after sharing and communicating ideas on the given tasks. Pupils are asked to work on shared tasks which may enable individuals to contribute as a group to produce a joint outcome.
- **Collaborative groups:** Collaborative groups involve joint problem solving activities which invite and encourage pupils to work jointly in order to produce an agreed solution for the given problems.

According to Galton and Williamson (1992), the basic purpose behind seating and working groups of pupils is to save lesson time by introducing the topic, giving directions and guiding activities to five or six groups of pupils, rather than to 30 individuals (Galton and William, 1992, P.09). The cooperative and collaborative groups are majorly favoured in the educational system as a means to enhance pupils' cognitive and social capabilities (Blatchford et al., 2003), and to enable them to interact and learn from others' experiences and knowledge (Mercer and Sams, 2006). However, Boxtel et al. (2000) assert that collaborative groups are the most favourable spaces for pupil interaction compared to cooperative groups. As mentioned above, the division of tasks in cooperative groups can hinder interaction. Whereas, pupils can have equal access to learn in collaborative groups as they interact with others productively to achieve a common goal while sharing given materials and activities.

2.6 Group organization in English primary schools

Baines et al. (2003) state that it is regarded as common practice for four to six children to sit around tables in groups in primary classrooms in the United Kingdom. Baines et.al (2003) provide a detailed systematic description and analysis of grouping practices in primary and secondary schools in England. The data was combined from three separately conducted research studies on grouping practices, including the Primary Classroom Grouping Project (6-10 years), Grouping practices in Receptions (4-5 years), and Grouping Practices in secondary schools (11-15 years). In all three projects, the data was generated using a questionnaire "grouping mapping questionnaire" from 4,924 schools altogether. The questionnaire was completed by teachers during a particular part of the school day. The information about the nature and use of groups within their classrooms, focus on number and size of groups, type of working interaction between pupils, group composition, learning task and presence of adults was also requested from teachers. The results show that upper primary Year 5 and secondary schools more likely use ability sets with 44 per cent in Year 5, and 70 per cent in Year 10 for Mathematics and English at the time when the questionnaire was administered.

At primary level, grouping practices are not greatly varied because teachers emphasize on teaching the full curriculum. The use of homogenous ability grouping within classes to follow the recommendation of the government's white paper 1997 (Baines et al., 2003, p.22) can reduce variation in grouping practices in upper primary

classrooms. Teachers are more likely to organize small groups or pair work to manage additional adult support, and to teach varied natured tasks according to the distinctive abilities of their pupils. The change in grouping practice is believed to be more suited to teaching particular subjects (Kutnick et al., 2002), with pupils being more likely to work in ability sets in Mathematics and English, whereas, heterogeneous ability groups are organized in Science and other subjects. According to Baines et al. (2003), the use of group work to manage classroom and teaching and learning resources can question the efficacy of group work as a teaching practice to maximize pupils' learning through social interaction. It seems to divert teachers' perspectives from organizing group work to improve pupils' development to only implementing the curriculum.

The role of ability grouping in pupils' learning and development is a prominent aspect of discussion in English educational policy and research (Francis et al., 2016). A huge part of educational and developmental research exemplifies the benefits and drawbacks of using ability based "fixed/homogenous ability groups" or "heterogeneous/mixed ability groups". In the below given sub-sections, I explain the organization of both fixed and mixed ability groups and their role in supporting or hampering social interactions among pupils, as evidenced in the existing empirical research on ability grouping.

Section 2.6.1 describes the process of organising fixed ability groups. In its subsection, I provide evidence from research to reflect on the role of fixed ability groups in increasing, as well as in decreasing, social interaction among pupils during their group work.

Section 2.6.2 explains the organisation of mixed ability groups. In this subsection, I explain the role of mixed ability groups in affecting social interaction among pupils during their group work, as identified in the empirical research.

2.6.1 Grouping pupils in ability sets (fixed ability groups)

Segregating pupils based on their prior attainment has become dominant practice in English schooling (Francis, et.al, 2016, p.03). Dracup in Francis et. al., (2016) cited that almost three-quarters of secondary pupils are taught in ability groups for Maths (71%), nearly two-thirds for Science (62%) and over half for English (58%). The ability groups are formed on the basis of pupils' performance in their end of year assessments (Cox, 2011). The ability grouping seems to be advocated as an aspect for

raising educational standards in policy discourse (see Chapter 1, Section 1.3). Before the introduction of the new curriculum in 2013, ability based groups were generally organized to set learning targets for pupils in all core subjects. Pupils were expected to achieve specific targets fixed by teachers by the end of Key Stage 1 and 2 in most of primary schools. I provide an example of academic targets prepared by class teachers from the schools I visited for piloting my research proposal. The table prepared by a local public school that I visited for the pilot study explains the targets that are expected to be achieved from the pupils by the end of a school year:

Name of Pupil:		Current Year:		Date:	
Age at the end of the school year	Year group	NC Level	Maths	Reading	Writing
Typical 5 year old	Rec	ELG			
Typical 6 year old	Year 1	1c			
		1b			
		1a			
Typical 7 year old	Year 2	2c			
		2b			
Typical 8 year old	Year 3	2a			
Typical 9 year old	Year 4	3c			
		3b			
Typical 10 year old	Year 5	3a			
		4c			
Typical 11 year old	Year 6	4b			
Typical 12 year old	Year 7	4a			
Typical 13 year old	Year 8	5c			
		5b			
		5a			
Typical 14 year old	Year 9	6c			

Figure 1: Target levels for an academic year in primary schools (2011)

According to the latest refinements in the national curriculum published in September 2013, “levels” used to report pupils’ performance are now replaced with attainment targets. The school and class teachers are given the freedom to plan educational activities flexibly in order to cater for the distinctive learning needs of their pupils. However, their teaching is expected to revolve around the attainment targets specified for all subjects in the statutory programme (Department for Education, 2013). A model of attainment targets for Maths and English designed by the same primary school is shown in the figure below as an example:





Reading		English				
E=Entering D=Developing S=Secure	E D S	E=Entering D=Developing S=Secure	E D S			
 <p>Retrieve</p> <p>I am able to identify key details and ideas in texts by summarising a given number of paragraphs I have read.</p> <p>I can retrieve, record and present information from non-fiction.</p> <p>I check my understanding of books I have read through discussion and exploring the meaning of words.</p> <p>I can distinguish between statements of fact and opinions.</p>		 <p>Perform</p> <p>I have learnt a wider range of poems by heart.</p> <p>I am able to read aloud and perform poems and plays, and use appropriate intonation, tone and volume to help the audience with their own understanding.</p>				
 <p>Interpret</p> <p>I can ask questions about what I have read to further improve my understanding.</p> <p>I show my understanding of what I have read by drawing inferences from within the text and justifying them with evidence.</p> <p>From my reading, I can predict what may happen in a story from details given and suggested.</p> <p>I can make comparison within and across books.</p>		 <p>Viewpoint</p> <p>I can identify themes and features across different types of text.</p> <p>I am able to justify my views.</p>				
 <p>Choice</p> <p>I know authors use particular language which will have impact on me, the reader.</p> <p>I can show how language, structure and presentation all contribute to meaning in texts.</p> <p>Discussing and evaluating how authors use language, including figurative language, considering the impact.</p> <p>I understand what I read, even though books are set out in different ways and are written for different purposes.</p>		 <p>Review</p> <p>I continue to read and discuss an increasingly wide range of fiction, poetry, plays, non-fiction and reference books as well as text books.</p> <p>I participate in discussions about books I have read, or those that have been read to me by listening to others' ideas.</p> <p>I can challenge views of other courteously if they differ from my own.</p> <p>I can explain and discuss my understanding of what I have read.</p> <p>I can present or debate on topics I have read about, using notes if necessary.</p> <p>I am becoming familiar with a wide range of books from our own literary heritage and also books from other cultures and traditions.</p>				
How am I progressing?						
	Autumn Y5	Spring Y5	Summer Y5	Autumn Y6	Spring Y6	Summer Y6
What points I need...	10	20	30	40	50	60
Where I am currently..						
What I need to do...						

Figure 2: Attainment Targets for teaching English in Year 6

check answers to calculations.

I can solve problems involving +, -, x and =

I can use written division methods in cases where the answer has up to 2 d.p

I can calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm³) and cubic metres (m³), and extending to other units (for example, cm³ and km³).

I can calculate the area of parallelograms and triangles.

I can recognise when it is possible to use formulae for area and volume of shapes.

I can recognise that shapes with the same area can have different perimeters and vice versa.

I can convert between miles and kilometers.

I can use, read, write and convert between standard units.

I can solve problems involving the calculation of percentages.

I can solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts

How am I progressing?			
	Autumn	Spring	Summer
What points I need...	14	20	42
Where I am currently...			
What I need to do...			

Maths



I can draw and translate simple shapes on the coordinate plane, and reflect them in the axes.

I can describe positions on the full coordinate grid.

I can recognise angles where they meet at a point, are at a straight line, or are vertically opposite, and find missing angles.

I can illustrate and name parts of circles, including radius, diameter and circumference.

I can find unknown angles in any triangles, quadrilaterals, and regular polygons.

I can calculate and interpret the mean as an average.

I can construct line graphs.

I can interpret line graphs.

I can construct pie charts.

I can interpret pie charts.

Number, Place Value and algebra

+, -, x and =

Ratio and Proportion

Measurements

Fractions, Decimals and percentages.

Geometry

Statistics

Figure 3: Attainment Target for teaching Maths

Teachers are guided to use both internally and externally marked tests to assess pupils' work and give feedback to pupils and their parents. The assessment guidelines are also available for teachers in the form of performance descriptors specified in the statutory programme to track pupils' progresses.

National curriculum tests

Key stage 1

English reading

Mark schemes

SAMPLE BOOKLET

Published July 2015

This sample test indicates how the national curriculum will be assessed from 2016. Further information is available on GOV.UK at www.gov.uk/sta.

Sample key stage 1 English reading test mark schemes

Qu.	Requirement	Mark
4	The king treated the animals badly. a) What had the king done to the fox? Content domain: 1b – identify and explain key aspects of fiction and non-fiction texts, such as characters, events, titles and information. Award 1 mark for reference to hunting / chasing / hounding him.	1m
	b) What had the king done to the ants? Content domain: 1b – identify and explain key aspects of fiction and non-fiction texts, such as characters, events, titles and information. Award 1 mark for reference to poisoning / pouring hot water on them.	1m
5	<i>For years he's drained me and dirtied me.</i> What does the word <i>drained</i> mean? Content domain: 1a – draw on knowledge of vocabulary to understand texts. Award 1 mark for the correct option ticked. filled up with water <input type="checkbox"/> stirred up the water <input type="checkbox"/> emptied out the water <input checked="" type="checkbox"/> worn out the water <input type="checkbox"/>	1m
6	The blackbird said: " <i>You and I are at war.</i> " How do you know that the king was not worried by this? Content domain: 1d – make inferences from the text. Award 1 mark for reference to the king laughing, e.g. <ul style="list-style-type: none"> • <i>when he said it the king laughed.</i> • <i>he thought it was funny.</i> Do not accept answers that do not mention the king laughing – we only know he isn't worried as he laughs.	1m

Figure 4: A sample of answer booklet prepared by the Department of Education: Retrieved from: <http://www.gov.uk>

2.6.1.1 Pupils' learning and development in fixed ability groups

In this section, I explain empirical research on ability based group organisation to reflect on the benefits and drawbacks of using fixed ability groups to promote interaction in the classroom.

The benefits of using fixed ability groups is mainly favoured to increase the academic achievements of pupils, particularly those with high attaining levels. Gamoran (2002) asserts that pupils of high ability are given complex and differentiated tasks related to their higher cognitive capabilities. This gives them opportunities to discover new dimensions of knowledge by practising complex learning exercises which may polish their academic capacities.

Most of the research on ability groups has identified its drawbacks in developing pupils' learning and social development. Many researchers (William, Brown & Boaler, 2000, William and Bartholomew, 2004, & Marks, 2013) do not perceive ability groups as a means to enhance pupils' learning. For instance, Boaler et al. (2000) argued that ability-based groups constrain learning opportunities for pupils in many schools. Data from a four-year longitudinal study was used to claim that pupils' learning levels and achievements were taken as evidence to identify them as *more able* or *less able* learners. Pupils' mathematical learning was monitored in six schools using mixed ability teaching. During the course of study, one of the schools started using ability based teaching at the beginning of Year 8. Three schools started using fixed ability groups in Year 9 and the other two schools continued with the mixed ability teaching approach for teaching Mathematics. Nearly 1000 students learning Mathematics in ability groups were observed for 120 hours. A questionnaire and a 30-minute long interview were also administered to students after observing their performance and learning experiences. The results show that students appear to face negative consequences as a result of this shift from mixed to fixed ability based teaching. The findings indicate that pupils appear to consider their work at an appropriate level and pace while learning in mixed ability groups. Under fixed ability groups, pupils with high abilities complained of feeling pressurised to finish the complex tasks, whereas, pupils with low abilities were expected to perform low and were allocated less difficult tasks, while learning the same lesson. The differentiation of tasks based on pupils' assessed performances appeared to generate inequalities by

classifying pupils with high attaining levels as mini-mathematicians, and pupils with low attaining levels as failures (Boaler et al., 2000).

William and Bartholomew (2004) state that ability sets not only categorise pupils on the basis of their present performance, but also predict about their future performance. William and Bartholomew (2004) observed 955 secondary school children from six secondary schools between 1996 and 2000 in London. All students in each school were taught under mixed ability teachings in Year 7. However, all schools changed teaching approaches from mixed ability groups to ability based sets in Year 11. A questionnaire, interviews and lesson observations were administered in order to collect data to evaluate the impact of ability based grouping on pupils' attainments and attitudes. The data on student performance in the national test in Year 9 and in GCSE (General Certificate of Secondary Education) examinations in Year 11 were also gathered. Overall, the results show that there was a consistency between pupils' scores at Key Stage 3 and their GCSE's results. Pupils with high attaining levels were expected to score better so they showed higher performances. Pupils with low attaining levels were expected to perform poorly, therefore, their performance in both assessments was low, as expected. These results also revealed that in most cases, teachers consider pupils' academic abilities as static, which remains the same in all conditions (William and Bartholomew, 2004), and therefore, teachers transferred pupils into the next key stages with their fixed assigned attainment levels. In every subsequent stage, pupils were given learning tasks that matched their existing learning levels, presuming that they had fixed potential to perform particular tasks and not achieve beyond it.

Differentiating pupils in ability groups has narrowed down and limited the concept of teaching to allocate learning tasks matched with pupils distinctive existing academic abilities only (Hart, 1992). Hart (1992) describes that differentiation in itself is not a bad idea, as it intends to facilitate pupils while differentiating teaching experiences according to their distinctive personalities. In the national curriculum, differentiation means that all children differ in abilities, aptitudes and needs (NCC, 1990 cited in Hart, 1992, p. 131). All schools are required to plan their curriculum objectives, teachings materials, learning activities and assessment methods in a way which can cater for the individual needs of all pupils. Nevertheless, the problem arises when differentiation is used to limit pupils' learning with their academic achievements only. This narrowly perceived concept of differentiation hinders teachers from adopting

holistic instructional strategies to encourage equal learning opportunities for all pupils (Hart, 1992) as observed in the above summarised research studies.

Hallam and Ireson (2007) attempted to explore pupils' satisfaction with their ability based groups. They also attempted to explore the reasons behind pupils' desires to switch their groups or class. Hallam and Ireson (2007) involved 45 mainstream secondary schools with 8000 students in their research. The participants were asked to complete a closed-ended questionnaire based on self-concept scales in order to measure their attitudes towards school. Open-ended questions were also asked to explore participants' preferences for particular groups or classes. This large-scale survey indicated that a high proportion of secondary school children were unhappy and unsatisfied with their sets and class placements. In Mathematics, with the highest level of ability based teaching, 38% of students appeared to rate their set as unsatisfactory. In Science, where ability sets were used moderately, 33% students regarded their sets and classrooms as unhappy and unsatisfactory. For English, with a high proportion of mixed ability, only 23% pupils were not satisfied. The survey concluded that pupils were more satisfied while learning in mixed ability groups as compared to fixed ability groups.

Pupils' dialogues in fixed ability groups are controlled and tuned by the class teacher with individual instructions (Cazden, 2001, p.66). The attention is mainly given to the outcome of group work to finish the given task (Ireson and Hallam, 2001) rather than on the learning processes of pupils. Some researchers (Edwards and Mercer, 1987) have described ability groups as skill tuition exercises. They assert that ability groups are used to enable pupils to practice pre-determined skills which can limit opportunities for them to socially interact with their peers. The activities in fixed ability groups are tightly planned by the class teacher, through which chances for pupils to discuss given tasks with others and to learn from their expertise (Jarvis, 2005) can be eliminated. According to Conroy et al. (2010), emphasis on individual learning by grouping pupils in performance based groups can contradict with the pedagogical assumptions of group work. Performance based group work seems to neglect the importance of the academic and social benefits associated with social interaction.

Ability groups are also criticised for having a negative influence on pupils' social development. In this regard, Hart et al. (2004) explain that ability groups can lead to the portrayal of a poor identity of the pupils. While defining the concept of learning,

Hart, et.al (2004) assert that ability is viewed as the speed of learning in the recent educational system. When those with different abilities learn the same subjects, the differences in their achievements will be obvious enough to label them as more or less able. This view of learning not only points out the existing differences of pupils' attainments, but also predicts their future performance. If pupils' abilities are viewed as 'inborn intelligence' and they are judged on the basis of their existing abilities, it can lead to portraying their identities for future. Pupils may consider themselves as more or less able due to remaining in high or low ability groups for a long time, and this type of association, particularly in low ability groups, may affect their self-image negatively in their classrooms and other social contexts, due to the poor and low expectations of others about them.

Hart and associates accounted various classroom based inquires conducted by school teachers who had suffered with their categorisation as 'less able', and were now attempting to inculcate the culture of "learning without limits" in their classrooms. Learning without limits is defined as one of the major focuses of comprehensive educational reform (Hart et al, 2004), and can be used to create a flexible learning environment free from any label to facilitate pupils' learning in the classroom. The data from the focus group interviews with the teachers revealed that they adopted various principles of flexible/mixed ability groups, flexible lesson plans, a variety of learning styles, and passing on control to pupils to create comfortable classrooms. These principles appeared to assist teachers to make their classrooms enjoyable and academically fruitful for all pupils. Teachers also reported some constraints including time, resources, large space, and expectations of the national curriculum, which sometimes interfered in the implementation of the label free learning environments in their classrooms.

Ericsson (2003) claimed that people's self-concepts are constructed and shaped by others' assumptions about them. People hold specific roles in various social settings including schools, workplaces and homes. These roles portray as well as influence peoples' identities and self-concepts. Bruner (2002) states that interaction with the outside world influences the development of selfhood. According to him, schools are the first social environments with which children interact after their families, therefore schools can play a vital role in building and constructing pupils' self-image (Ericsson, 2003). However, sometimes teachers exercise their energies to meet professional requirements only, which may lead them to ignore the social and emotional welfare

of their pupils (Bruner, 2002). For instance, greater emphasis on improving pupils' performance through ability based groups may not enable teachers to assess their influence on pupils' cognitive and social development, as expected in the theories of learning through social interaction.

2.6.2 Grouping pupils in mixed ability groups

In mixed ability groups, pupils with different attainment levels are grouped in one group in order to work on the similar tasks assigned to them by their teachers. The mixed ability groups are generally organized in foundation lessons including ICT, design, PE and topic.

2.6.2.1 Pupils' learning and development in mixed ability group

In this section, I have summarised a few empirical studies on pupils' group work which has attempted to identify how mixed ability groups can affect social interaction among pupils having distinctive academic attainments, such as:

Mixed ability groups are believed to enhance interaction between the expert and novice (Cole et al., 1978) by creating proximal zones of development for less competent peers, as emphasized in the social learning theory of Vygotsky (see Section 2.3.2). Gamoran (2002) states that mixed ability group work can be used as a solution to resolve the aforementioned problems associated with fixed ability group work. However, group work in mixed ability groups itself needs proper planning to structure overall group processes to foster interaction among pupils. In his review of research on ability based fixed and mixed grouping structures, Gamoran (2002) cited various empirical studies to highlight how a lack of careful structure and absence of planning may not show any positive effects on pupils' learning in mixed ability groups. Therefore, the author concludes that class teachers are required to modify classroom settings and plan teaching strategies to promote social interaction among pupils while organising mixed ability group work in their classroom.

Both group composition and pupils' ability have joint and individual effects on pupils' achievements while learning through interaction and collaboration. Saleh, et.al (2005) assert that group work among pupils can be a key instrument to understand the differential effects of social interaction on pupils' learning and development. In their study, 104 elementary pupils from five different classes were involved in an experimental study to assess the effects of group composition on their academic achievements. The results revealed that pupils from average and low ability groups

appeared to gain more academic benefits while working in heterogeneous groups. The nature of social interaction in heterogeneous groups appeared to resemble the teacher-learner dialogue (Saleh, et. al, 2005, p.116). The pupils from low and average ability groups involved talking and questioning, and appeared to gain benefits from the explanations given by their peers having high attaining levels.

According to Boxtel et al. (2000), teaching instructions should encourage pupils to describe, explain and manipulate particular phenomenon in their classroom. The purpose of actively involving pupils in lessons can be achieved by generating interaction between the less and more competent pupils. In an experimental study, Boxtel et al (2000) involved 40 sixteen year old pupils from two Physics classes to work on concept mapping. They investigated the role of collaboratively structured learning tasks in eliciting elaborative activities among pupils during their group work. The results revealed that participants communicated their understanding of electricity concepts by talking about meaningful relationships between voltage, electrons and current strengths. The structured task appeared to help pupils to demonstrate both elaborative and collaborative actions during their interaction with others. According to Daniels (2012), when pupils with distinctive learning levels are grouped together, they ask questions, debate and justify their ideas to learn from one another. Therefore, social interaction between more and less competent pupils can enhance their learning in mixed ability group work.

In another research on group work, Saleh et al. (2007) suggested that the processes of giving and receiving explanations among pupils in heterogonous groups can be strengthened if class teachers provide additional support (Saleh, et.al, 2007, P. 315). Sometimes peer tutoring in heterogeneous groups remains unprompted as some pupils, particularly those from low ability groups, are excluded from group discussions. Very often, pupils mainly from high ability groups take over the group discussion thereby replacing teachers to explain the given activities. The authors suggested that well planned and structured group work should be used as a remedy to solve problems of non-coordination in mixed ability groups. The class teacher should define the group's roles and rules to assist pupils' learning and interaction in heterogeneous groups. The definite division of roles among pupils may encourage them to participate in group discussions equally. Pupils can get help as well as give help to their peers by asking questions, receiving and giving relevant explanations reciprocally.

Dillenbourg et al. (1996) reviewed research on collaborative learning and assert that grouping pupils with diverse learning levels together in one group does not always guarantee that they will collaborate and learn from each other. We can only expect that pupils will interact with one another once we group them in heterogeneous groups (Dillenbourg et al., 1996). The author and associates summarised that research on group work has until now either reflected on the effective role of various alternative (mainly Piaget and Vygotsky) theories of group work, or emphasis is given to the control of various variables (i.e., size of group, composition, and nature of the task). However, research on group work needs to cater for various factors which can generate and perpetuate interaction among participants.

Above all, I have presented evidence derived from empirical research on ability groups to explain the influences of group organisation on the nature of pupils' interactions during their group work. The commonly organized ability based homogenous and heterogeneous grouping structures have both advantages and disadvantages on pupils' learning and development. Fixed ability group work, in which pupils with similar academic achievements are grouped, seems to show benefits from each other's knowledge. However, opportunities for group members to learn from more competent peers are apparently decreased as all group members share similar cognitive competencies. Whereas, in mixed ability groups pupils seem to have more opportunities to socially interact with more competent peers due to having differences in their learning or attainment levels.

However, due to various socio-political commitment to attainment based groups (Taylor et al., 2016) the mixed attainment grouping practice is sometimes overlooked in the English primary classroom. The authors reported findings from a pilot study of their ongoing large scale research on grouping practices in England. The project is aimed to recruit 120 schools although for the pilot phase, only seven secondary schools practising mixed ability grouping were invited to participate. The questionnaires were completed by pilot school teachers. Teachers were interviewed to enlist the challenges that they face when implementing mixed attainment groups. Teachers' responses highlighted various fears, categorised as workload factors, pedagogic factors, change factors and accountability. The data showed that fears of not having sufficient time, resources and training seem to affect teachers' decisions for organising mixed ability group work. Similarly, teachers' commitments to organize differentiated teaching to train pupils with distinctive high, average and low

attainments levels, producing good results and external accountability were reported as main factors influencing their perceptions on mixed ability group organisation.

Baines et.al, (2003) in his initial projects on grouping practice also identified that the emphasis on teaching the curriculum is one of the main reasons behind organising ability based groups in English primary classrooms. Due to the increasing pressures of international measures such as PISA (Programme for International Student Assessment), the perception of gaining a particular position in the league tables is growing significantly in education in England (Wyse et al., 2014). As a result, most schools prioritise testing and pupils' assessments to correlate test results with educational standards. Some schools mainly emphasize on achieving best standards and preparing pupils for tests only. Therefore, they seem to ignore the nature of knowledge and its influence on pupils' overall development (Hayward, 2013).

The focus on standards and accountability sometimes leads school teachers to consider their classroom as a black box (William and Black, 2010). In many cases, teachers, as well as pupils, are expected to follow various inputs from external forces, which include management rules and requirements, parental anxieties, standards and tests with high stakes. While fulfilling these external pressures, teachers are more likely overlook the importance of understanding conditions inside the box (William and Black, 2010, p.81). For instance, political commitment to external testing may sometimes restrict teachers in providing a helpful diagnosis of pupil performance which may facilitate their learning in future. Teachers seem to mainly serve managerial functions at the expense of pupils' learning by producing overall summaries of pupils' achievements, rather than properly analysing their work to identify any further learning needs. By doing so, teachers may not feel confident enough to bring innovation to their teaching practice and pedagogies to accelerate pupils' learning, as proposed in the theories of learning. They also seem to ignore the expected cognitive and social benefits of social interaction (see above Section 2.4) while organising group work in their classrooms.

After reviewing empirical research on ability based group organisation, I conclude that the basic purpose of organising group work in the classroom should be to encourage social interaction among pupils. Pupils can be given tasks matched with their existing or expected levels as takes place in fixed ability groups. They can also be given opportunities and support to learn beyond their expected learning levels while interacting with more competent peers as takes place in mixed ability groups.

Therefore, emphasizing upon the basic differences of group structure, either fixed or mixed ability groups, may not only help to resolve tensions associated with pupils' interactions. I assume that the nature of pupils' interaction, particularly in mainstream classrooms, does not seem to be dependent only on a specific group structure. The nature of pupils' interactions can be influenced by various factors existing in the overall context of group work, which may require us to understand the context of group work to make pupils' interactions beneficial for their cognitive and social learning, as explained in the subsequent heading.

2.7 The importance of researching the context of pupils' interactions during their group work

This section discusses the latest trends in research on group work, which appear to highlight the role of context in making social interaction successful or unsuccessful in pupils' learning and development.

The influence of context on pupils' interactions holds a central importance while researching group work. There is an extensive body of empirical research (as explained in the present section) which attempts to address the influences of context on pupils' interactions by identifying various organisational strategies to make social interaction beneficial for their learning and development. Major attention was given to structuring the classroom environment and creating constructive conditions for pupils to maximise their learning through social interaction (Gillies, 2014). In this respect, the empirical research appears to address three basic elements, including the role of group structure, class teachers, and pupils' training for preparation to interact with others during group work, such as:

2.7.1 Constructing group structure to enhance group work

Roseth et al. (2008) assert that the nature of the group structure plays a crucial role in determining favourable or unfavourable conditions for pupils' interactions, and can influence the nature of social interdependence among pupils while working as a group. Roseth et al (2008) reviewed 148 studies representing 17,000 early adolescents from 11 countries and 4 multinational samples, in order to explore the effectiveness of cooperative, competitive and individualistic group structure in promoting achievement and peer relationship among early adolescents.

Their meta-analysis revealed that the nature of social interdependence among pupils generally takes three forms during group work. If pupils are interlinked under a

cooperative group to achieve a common goal or success, they will generate positive social interdependence with one another as a group. Under the cooperative group structure, pupils assist others and work mutually to achieve common and shared success. If pupils are not interlinked and given individual tasks under an individualistic group structure, they do not generate interdependence with their peers. They can assume that the presence of their peers does not affect their learning either positively or negatively, therefore they can achieve their goal by themselves. The third form of social interdependence among pupils during group work is known as negative interdependence. It is created among pupils by grouping them under a competitive group structure. In competitive groups, pupils are given shared tasks but are expected to carry out the task individually. Pupils think that they can obtain their goals by themselves. Importantly, pupils concentrate on competing with others by completing their tasks first, and ignore their peers while leaving them behind with their work (Roseth, et.al, 2008, p.225).

After defining three different forms of social interdependency, Roseth et al. (2008) suggest that pupils should be grouped under cooperative group structures. The authors recommend that teachers are required to plan and enhance possibilities for pupils to establish positive social relationships with peers during their group work. Teachers should sensitise pupils to make them realise that they are positively affecting others, and being affected by others while working in groups.

2.7.2 Constructing teacher's intervention/instruction to enhance group work

Dekker et al. (2006) suggested that teachers should provide adequate tasks and should help pupils to maximise their success while working in groups. Dekker et al. (2006) experimented with two types (i.e. process-oriented and product-oriented) of interventions to identify their effectiveness in enhancing social interaction and mathematical learning among high school pupils. The product-oriented interventions were limited to content-based help only. Through process-oriented help, pupils were assisted to ask and give explanations to increase their interactions with peers. They were helped to raise task-related questions to increase their understanding of the given numerical tasks. They were also probed to reflect on their experiences of learning or doing the given task in groups. The study revealed that compared to product-oriented help, process-oriented help seemed to assist pupils more to facilitate their group work. Product-oriented help can benefit or assist pupils individually, whereas process-oriented help can enable pupils to considerably increase their performance and

learning while interacting with others. Based on these results, Dekker et al. (2006) recommended that teachers can benefit more than one individual while using process-based help to assist pupils' learning and their interactions while operating group work in their classroom.

Howe et al. (2007) suggest that teachers should provide guidance to scaffold pupils' discussions to help them to maximise the benefits of working with others in groups. Howe and associates conducted research with 24 primary schools from eight local authority regions in central Scotland. Pupils from the fifth, sixth and seventh grade (aged 10-12 years) were selected as three single and three composite classes to work on a pre-planned Science programme. Howe's research was aimed at investigating the effectiveness of the designed programme in enhancing pupils' learning during their group work. The second aim of the research (Howe et al., 2007) was to investigate the effectiveness of the role of teachers in perpetuating the success of pupils' group work. The significant increase in pupils' post-test performance confirmed that teachers should be given detailed resources and training for encouraging group work among pupils in Science. Teachers should be trained on how to organize and work with small groups of pupils in Science lessons during their professional development.

Gillies and Boyle (2008) also conducted some research with seven teachers from a junior high school in order to explore their perspective on organising group work. The follow-up interviews from teachers highlighted that teachers considered structuring and planning as important aspects of successful organisation of group work. They mentioned preparing specific group tasks before organising group work to encourage pupils to undertake the given task as a joint activity. In the light of findings, Gillies and Boyle (2008) suggest that teachers can use a wide range of mediated behaviours, including challenging pupils' responses, asking questions, explaining pupils' responses to encourage them to positively interact with others while working in groups. The need for pupils' training to teach them social and group skills was also emphasized by the authors, as explained in the next section.

2.7.3 Constructing pupils' skills to enhance group work

Training pupils to enable them to work better in groups is also one of the dominant fields of educational research on group work. It is assumed that pupils need sophisticated group skills to engage in interactions and work collaboratively with others in groups (Gillies, 2014). Teachers are required to build confidence among

pupils through teaching them conflict management and the processes of making joint decisions while working in groups. These suggestions are based upon the findings of a well-known project - SPRING (Social Pedagogic Research Project into Group work). This long-term project was conducted with 5-14 year old pupils at Key Stage 1 to 3 for almost four years. The project aimed at improving pupils' social, emotional and communicative skills in order to prepare them to work effectively in group-based learning environments (Baines et al., 2009). Baines and associates introduced four key principles to enhance the quality of group work. The principles as proposed in their earlier volume (Blatchford et al., 2003) involved classroom arrangement and layout, pupils' training of group skills, planning tasks and activities that warrant group-based learning, and adult involvement in pupils' group work to keep it on track (Blatchford et al., 2006). Teachers were trained to design training programmes for pupils to teach them various social and communicative skills for successfully interacting with others in groups. The participants were divided into 31 spring (experimental) and 29 control groups to work on a specially designed group decision making activity. The video observations of pupils' group work signified considerable improvement among pupils in using social, communication and interactive skills. Based upon these findings, Baines et al. (2009) emphasized upon teachers to consider group work as a central element in their teaching processes. The authors advised teachers to enrich pupils' orientation of interpersonal social skills across the curriculum in order to facilitate their social interactions and learning during their group work.

Baines et al. (2009) also suggested numerous communicative, structural and organisational instructions for teachers to promote effective group work among their pupils. These instructions include communicative strategies to train pupils to participate, share, explain, and answer queries raised by their peers while working as a group. In this respect, Gillies (2014) mentions some social communicative skills of listening, responding and respecting each other's views, which can be taught to pupils before operating interaction based learning environments in the classroom, as stated earlier (see above Section 2.4.2).

The above mentioned projects provide guidance for successfully engaging pupils in interactions by improving the context of their group work in classrooms (Blatchford et al., 2006). They appeared to provide teachers with comprehensive relational approaches to maximise the effects of group work on pupils' social and academic abilities, and to overcome the concerns associated with poor and disruptive pupil

participation. However, despite having an enormous research area to identify strategies to improve group work (Blatchford, et.al, 2005, Baines, et. al, 2009, Dekker, et. al, 2004 and Howe, et.al, 2007), group work still seems to be a neglected teaching aspect (Galton and Hargreaves, 2009, p.01).

According to Galton and Hargreaves (2009), the importance of organising group work among pupils has now been recognised universally. High flying countries in the international league table including China, Singapore and Hong Kong suggest group work as a means to get rid of teacher-directed approaches and to encourage pupil participation in the teaching and learning processes. While following tradition, group work in western countries also emerged in the 1970s. However, the cognitive and social benefits suggested in the theories of group work are still regarded as underachieved. For most of the time, pupils are grouped in small groups during their lesson time, as explained above. However, pupils very often just sit in groups but do not work together as a group (Galton and Hargreaves, 2009).

Most of the aforementioned explorations on group work to facilitate and improve social interaction among pupils seems to follow experimental designs (Woodhead and Faulkner, 2008). These studies provide insights into understanding pupil interactions (Howe and Mercer, 2010), but did not take into account various interpersonal relationships which can influence the processes of interaction among pupils. Particularly, experimental studies seem to fail to explore pupils' construction and understanding of group work. Mainly, findings of such studies were analysed and reported through the eyes of teachers or researchers (Robinson and Fielding, 2010a).

Furthermore, the role of context in influencing pupils has also not been given enough importance in previous research on group work (Robinson and Fielding, 2010a). As stated above, emphasis is majorly given on addressing issues relevant to the role of group structure, teachers, and pupils' training of group skills in making social interaction productive and effective for pupils' learning and development. However, how these structural approaches to improve group work are perceived and interpreted by pupils is less regarded. It seems to create a space for exploring pupils' perspectives on their experiences of working with others in groups, which I have attempted to cover in my current research by using the ecological theory of Bronfenbrenner.

2.8 The conceptual framework of my study

The above identified concerns relating to the theoretical as well as practical understanding of group work require us to adopt a research model which can assist us with tracing the influences of context on individuals, and also helps to investigate individuals' definitions of context in educational research. I used the ecological theory of Bronfenbrenner to study my research participants as evolving individuals, who were influenced by their environments to act or think in a certain way during their classroom based group work. I investigated the nature of pupils' interactions during their routinely based group work in a state primary school (see Chapter 3, Section 3.3) which is organized and run under the tenets of the national educational policy (Riggall and Sharp, 2010). The use of Bronfenbrenner's ecological system theory allowed me to explore dynamic relations among pupils, particular classroom, school, community and society (Bronfenbrenner, 1979). To further explain the role of ecological theory in investigating pupils' interactions during their group work, I will briefly summarise the theory of Bronfenbrenner first. I then explain the application of ecological theory in my research to illustrate the significance for understanding the relationship between pupils' interactions and their contexts.

2.8.1 Bronfenbrenner's ecological theory

Bronfenbrenner asserts that human development is a product of interaction between the growing organism and its environment (Bronfenbrenner, 1979, p.16). His ecological theory defines the individual's environment as a set of nested structures, like a set of Russian dolls (Bronfenbrenner, 1979, p.03). According to him, the context of the individuals is comprised of four layers which interact in a complex way to affect each other's development. The five layers of the context are defined as microsystem, mesosystem, exosystem, macrosystem and chronosystem (Bronfenbrenner, 1995, p.188).

The micro system is defined as an immediate setting, also known as face to face setting (Bronfenbrenner, 2005, p.146) in which an individual lives or exists such as home, classroom and playground. The meso system encompasses various events and activities taking place in one or two settings of individuals. For instance, relationships between home and school or school and workplace count as mesosystem. The exosystem is comprised of activities which do not exist in individuals' immediate settings, but influence them or their immediate (micro and meso) systems. The macro

system is defined as overarching patterns of ideology of the social institutions common to a particular culture or sub-culture. The chronosystem reflects developmental changes within individuals, and thus not directly related to external events or activities. It studies the impact of change and continuity over time on the evolving individuals. The chronosystem system is an addition to the existing ecological model, which deals with dimensions of time to analyse its impact on human development (Bronfenbrenner, 2005, p. 80-86).

Bronfenbrenner (2005a) asserts that the reciprocal/bidirectional interplay between individuals and their environment happens at micro and meso levels. Due to having bidirectional connections with one another, individuals affect and also get affected from their micro contexts. The fourth and final (exo and macro) levels of development directs individuals towards concrete goals through unidirectional relations (Bronfenbrenner, 2005, p.98-99). Thus, individuals can only become influenced, but they cannot influence or change their macro contexts.

2.8.2 The use of Bronfenbrenner's ecological theory to research an educational setting

The idea of using the ecological theory in an educational context is based on the assumption that researchers cannot restrict themselves to the laboratory while researching educational systems and processes (Bronfenbrenner, 1976). Peoples' learning in educational settings is a result of various forces and systems existing in their surroundings, therefore researchers can use a discovery based research model (Bronfenbrenner, 1976, p. 5) while studying educational contexts in their scientific inquiries. According to Bronfenbrenner (1976), natural experiments and discovery based research enable researchers to study the relationship between persons, contexts and various other structures while studying educational settings. These models are also long enough and allow researchers to approximate various real lives' activities, in which their participants partake in and construct social meanings. In educational settings, the main objective of using the discovery based model is to discover, and not to test, the hypothesis. Therefore, it may help researchers to recapitulate the influences of the situation on individuals and explore definitions that individuals construct about the particular situation.

While using the ecological model, the organisational context of a state school can be divided into the sub-systems (Johnson, 2008) of the microsystem, mesosystem,

exosystem and macrosystem. The microsystem is defined as a pattern of activities, physical and material features which influence pupils and also become influenced by them. The microsystem of the school may also include pupils, teachers, administrators, parents and the local community surrounded by the school. The mesosystem describes forms of relations which emerge among the various structures of the microsystem. For instance, the nature of interactions taking place among pupils and teachers, and sometimes among classroom practices, school, pupils and their parents. These elements of the microsystem influence or become influenced from one another through a bidirectional relationship. The exosystem covers national educational policies and curriculum specifications which determine ongoing activities in schools. The macrosystem of the school covers various social, political, cultural and national values which influence and determine the educational practices of a society. The relationships between constitutional policies and individuals remain one way due to which individuals can only be influenced but cannot influence these external macro layers of the context (Bronfenbrenner, 2005c). The chronosystem includes the major life transitions, environmental, cultural and historical events that take place during the development. The change in the chronosystem can affect a child's interaction with the above-mentioned four layers of their contexts. For instance, moving to another city or country can be an example of the chronosystem in which children experience changes in their micro, meso and macro contexts.

2.8.3 The translation of ecological theory to research pupils' interactions during their classroom based group work

As stated earlier (see Chapter 1, Section 1.3), my research aims to investigate the nature of pupils' interactions during classroom based group work. Also amongst the main aims of the research is to explore how context is perceived by pupils, and in return how this can influence their interactions and perceptions of group work in a classroom setting. I have used an ecological theory of human development to attempt to explore relationships between pupils and contexts, and how pupils' relationships with the context can influence their interactions and perceptions of group work. The ecological theory of human development proposes that human development may not be fully understood through a researcher's lens only without considering pupils' perspectives (Bronfenbrenner, 1976). Therefore, I not only hoped to explore what pupils do and think of their groups or overall group work, but also explored the reasons

behind pupils' interactions and perceptions in order to understand why they act in particular cooperative, non-cooperative and competitive ways.

The ecological theory of Bronfenbrenner appeared to work as a conceptual framework of my study in order to identify relationships between pupils and their context, and in exploring emerging influences of pupils' context on their interactions in group-based activities. This facilitated me to understand the influences of immediate, as well as the wider environments, of my research participants on their interactions in a classroom setting. It created a space for perceiving the observed classroom not as an independent and static (Wedell and Malderez, 2013) environment, but as an evolving structure which contains multiples internal and external relationships and forces (Johnson, 2008) to implement teaching and learning practices in certain ways, as summarised in the table below:

Table 2: The ecological system theory to study organisational structures of the observed classroom in implementing group work

The contextual layers of the ecological model	The organisational layers of the school to implement group work
1. Microsystem	Strategies being implemented in the particular classroom to organize ability based group work. For instance, patterns of organising SATs (standardised assessment tests), marking of pupils’ work according to fixed scoring keys, allocation of different levels to all pupils to group them in high, average, low groups. The microsystem also involves size, group composition, group members and nature of learning activities.
2. Mesosystem	The organisation of ability based groups in the particular school, ability-based differentiated activities for different ability groups as described before (see Section 4.2), high ability groups work independently, average ability groups are supported by the class teacher and low ability groups work with a support teacher, end of term parental meeting in which parents were told about the academic performances of their children.
3. Exosystem	The interpretations of the national curriculum and educational policies regarding differentiation and ability groups, school’s practices of prescribing lessons for Key Stage 1 and 2, standardisation of taking and marking pupils’ assessments, prenatal concerns to consult teachers about academic achievements and placements of their child’s particular ability groups, parental emphasis upon their child to sit in high ability groups or work with particular peers.
4. Macrosystem	The emphasis on raising standards at state and national levels, stress on generating competition and getting good results to progress in society, various other social and cultural competitive structures that exist in pupils’ communities and households.
5. Chronosystem	Environmental and transitional events in pupils’ social lives which influence their interactions with immediate and wider context. For instance, moving to a different country with a changed educational system.

This table presents as an educational organisational structure of the observed classroom, which is linked with the broader national educational system and social communitarian demands to organize ability-based groups. It represents that the organisation of group work in the forms of fixed or mixed ability groups appears as a result of relationships among the above mentioned micro and macro organisational layers of the observed classroom, which are interlinked with one another to affect pupils' interactions and perceptions of their academic lives, as appears in my research (see Chapter 7).

2.9 Summary of the chapter

This chapter has summarised the contemporary literature on pupils' interactions and group work. I have explained the definition and theoretical framework of group work. The theories of Piaget and Vygotsky are discussed to explain relationships between social interactions and pupils' cognitive and social learning and development. I have explained how both theories propose two distinctive and contrasting assumptions to explain the process of social interaction and its role in maximising pupils' learning.

The empirical research has been summarised which explains the cognitive social benefits of organising group work in order to enhance pupils' developments and learning through social interaction in classrooms. The general forms of group work to encourage pupils' interactions in educational settings have also been summarised. After summarising more general forms, I have explained the role of commonly practised ability based groups in fostering, as well as in hindering, social interaction among pupils as evidenced in the empirical research. I have discussed the importance of the latest trends in empirical research on group work, which appear to highlight the effects of group organisation on the efficiency of pupils' interactions. The discussion on the role of context has enabled me to address the gap of researching relationships between pupils and their contexts, and how these relationships can influence pupils' interactions during their classroom based group work. I propose the ecological system theory of Bronfenbrenner as a main conceptual framework to research relationships between pupils and their contexts in my current study. I have explained the translation of ecological theory into my research in order to describe the organisational context of the observed classroom and its relationships with its broader educational and social context to organize group work in a certain way, which can shape the nature of pupils' interactions and their perceptions of classroom based group work.

CHAPTER 3: METHODOLOGY

3.1 Introduction

This chapter discusses the methodology of my research, which explores answers for the following research questions:

1. What is the nature of pupils' interactions during their routinely organized group work under ability based and other group structures in the primary classroom?
 - 1.1 Does the nature of social interaction among pupils change and transform from one grouping structure to another, and if so why?
2. What do primary school pupils think about their group work?
3. What is the role of organisational, social, and other cultural factors in influencing pupils' interactions and their perceptions of group work?

The methodology of my research is explained in the following sections:

Section 3.2 describes qualitative research as the main research approach followed in this small scale research study in order to explore and analyse the nature of pupils' interactions and their perceptions of classroom based group work.

Section 3.3 explains the research design of my study. I explain the rationale for selecting the particular classroom as a case of my study in the first sub-section. The second sub-section explains the sampling strategies that were used to recruit research participants from the same classroom.

Section 3.4 explains the research instruments of unstructured participant observation and informal conversational interviews which were used to gather data from the research field. The processes of using unstructured participation observation for observing pupils' interactions during their group work are explained in the first sub-section. The second explains the processes of using informal conversational interviews to interview pupils and their class teacher in order to explore their perceptions of classroom based group work.

Section 3.5 describes the processes of collecting data from the field. The first sub-section explains the processes of planning field work. The second describes the processes of completing the first phase of data collection. In the third sub-section, I explain the processes of reflecting on the data gathered in the first phase and planning

for interventions. The fourth describes the processes of the second phase of data collection and application of intervention in the research field.

Section 3.6 explains the processes of data analysis. I explain the processes of conducting the initial analysis of the data while using thematic analysis in the first sub-section. The second exemplifies the processes of conducting a deep analysis of the data while using a discourse analytical approach.

Section 3.7 describes the ethical procedures which I adopted before starting the field work, while being in the field, and after the field work while analysing and reporting the findings of my research.

In the previous chapter, I have explained that research on pupils' interactions and group work needs to be explored in the natural setting of a classroom, without running experiments, while involving pupils in the research process. The close involvement of the pupils and their teachers may help to identify various contextual, organisational and social factors which can influence their participation and interpretation of group work (see Chapter 2, Section 2.7). I intend to explore the nature of pupils' interactions during their routinely organized group work in a classroom setting, and adopted a research approach that allows me to gain a deeper understanding of pupils' group work through observing them in a naturalistic environment. Therefore, a qualitative research paradigm has been used to explore the answers for the above mentioned research questions of my study.

3.2 Qualitative research approach

“Qualitative research is a form of social inquiry that focuses on the way people interpret and make sense of their experiences and the world in which they live” (Holloway, 1997, p.01). This is defined as a type of research in which social scientists use flexible and comprehensive approaches to explore behaviour, perspective and experiences of the people that they study. They do not consider their research participants as individual entities who exist in a vacuum, but explore the worlds of people within the whole of their life context (Holloway, 1997). Researchers in qualitative inquiries centre on the ways in which human beings interpret and make sense of their reality subjectively.

Rationale for using a qualitative approach in a small scale research study

Denzin and Lincoln (2003) explain that a research paradigm is like a net which contains researchers' epistemological, ontological and methodological premises (Denzin and Lincoln, 2003, p.33). In the following paragraphs, I briefly explain some of the characteristics of qualitative research which provide justification for using it in this small-scale research project.

Qualitative research focuses on the everyday lives of people in natural settings. By using it as a research approach, I was able to participate in the ordinary educational lives of my research participants in order to get close to them. This extended and first hand engagement in the field (Hatch, 2002) provided me with opportunities to immerse myself in the research field in order to closely observe pupils' interactions. It enabled me to gather in-depth details of pupils' actions, opinions and their perceptions to identify various contextual factors, which can influence them to form and construct different meanings about their group work.

The qualitative research approach/paradigm mainly focuses upon participants' perspectives (Willis, 2007) through an understanding of the specific meanings and interpretations that they attribute to the specific context (Hammersely, 2008). This descriptive and context bound nature (Hatch, 2002) of qualitative research helped to gather detailed descriptions and the richest explorations (Hammersely, 2008) about pupils' interactions and their perceptions of group work. I was able to interact with my research participants (pupils) in order to explore their detailed perspectives of interacting and working with peers during their routinely organized group work. I was able to interpret participants' actions in terms of situations and contexts where they were gathered at the time of my observation (Blommaert and Jie, 2010). This closeness with my research participants enabled me to understand their general interactions by observing a full range of activities in which they were engaged in their natural contexts. It also enabled me to identify relationships between research participants and their social contexts, including group setting, structures, lesson activities, the class teacher, school, and the overall broader educational and social system.

Qualitative research places emphasis upon words as an item of data, rather than quantification of words or numbers (Bryman, 2008, p. 366) and does not seek any absolute answer (Hamersley, 2008, p.23). It derives theories directly from the data

and allows researchers to focus on the emic perspective to explore views of the people involved in the research (Holloway, 1997). Qualitative researchers describe in detail, analyse and interpret data without pre-determining data under any theoretical framework. While collecting data from the research field, no prescribed tools and experimental structures were used to gather information about pupils' participation in group-based learning activities. I remained open to gather all sorts of relevant information without strictly administering tools based upon any particular theory (see Chapter 3, Section 3.4).

The relationship between researchers and participants is close and based on a position of equality as human beings (Holloway, 1997, p.5) in qualitative research. Qualitative research allows researchers to remain flexible to cope with unforeseen circumstances and to create a non-judgemental environment. This flexible and unstructured nature of qualitative research enabled me to adopt an openness in my research design to create my image as trustworthy to my research participants. I inclined to present myself as a learner and a listener to access the honest feelings and thoughts of my research participants, as explained further (see Sections 3.5 and 3.7).

In qualitative research, reality is perceived as socially constructed and an emphasis is given to adopting a value-laden approach, compared to a positivistic view which perceives reality as context-free and value-free (Denzin and Lincoln, 2003, P.13). While using a qualitative research approach, I produced data in the forms of unstructured field notes, observations and interviews. The data collected was subjective in its nature, therefore, I cannot claim that my interpretations and assumptions of the data were pure, neutral and value free (Denzin & Lincoln, 2003, p.579). In qualitative inquiry, researchers' biases and subjectivities can influence their interpretation of the data (Silverman, 2014). However, the challenges of producing valid data can deal with the triangulation of the data (Hammersely, 2013) through which data gathered from different sources can be combined to access its validity.

To achieve this purpose, pupils and their interaction in groups during their normal educational activities were observed. Later, the same pupils were interviewed informally to reflect on their experiences of working in groups. Various informal discussions were organized with the class teacher in order to explore her perspectives (as being a class teacher) about the general group skills of the pupils observed in my research. I also conducted two semi-structured interviews with her to explore the types

of group work organized in her classroom. The purpose behind involving pupils and their class teacher in the interviews and discussions was to validate my observation. The responses given by pupils and their class teacher during their interviews and informal discussions enabled me to identify a few inaccuracies of my observations and their interpretations. In addition to gaining participants' perspectives, I interpreted the findings of this research as an outsider researcher by using the previously described (see Chapter 2) theoretical understanding of group work. This struggle of balancing my interpretations of data, both as an insider and as an outsider, helped to address a few of my subjectivities as a researcher, which have been explained further (see Chapter 7, Section 7.3).

3.3 Research Design (Case Study)

Creswell (2012) states that the selection of research design is considered as an important decision in qualitative inquiry as it helps researchers to explore answers relevant to the foci of their studies. In this section, I address the rationales for using the case study as a research design in my study. The description of the research design is explained in the following ways:

Section 3.3.1 justifies my decisions for choosing the particular classroom as a case in my research study.

Section 3.3.2 justifies sampling strategies to recruit pupils from the same classroom to study as subcases in my research study.

3.3.1 The selection of case (setting of the research)

I used the case study as a research design to study the particular classroom as a case. The case study is defined as a study of social phenomenon within the boundaries of social systems such as people, organisations, groups, individuals and local communities. It involves detailed exploration to develop a full understanding of the particularity and complexity (Punch, 2013) of one case or a small number of cases. It allows researchers to use a variety of research methods to retain holistic and meaningful characteristics (Yin, 2014) of real life processes taking place within a single context. Disciplines such as sociology, anthropology, organisational sciences and education mostly involve case studies, by using several sources of data, mainly interviews and observations, to gain detailed descriptions and understanding of the social processes (Swanborn, 2010).

One class in a local primary school was selected as a case to explore the practices of group work in a state primary school, and their influences on the nature of pupils' interactions. I presented the data of the study as a whole case rather than in parts (Schutt, 2006) to present individuals' perspectives (class teacher and pupils) about their group work. I mentioned comprehensive details of the physical and educational structures of the classroom (see Chapter 4), and linked these contextual details with pupils' group work to identify the relationships between pupils and classroom context which can influence their interactions and perceptions of group work. The particular classroom was studied as a case to observe pupils' group work which organized ability based groups (see Chapter 4, Section 4.3). Additional characteristics of the selected classroom are explained further (see Chapter 4, Section 4.2). Here, the rationale for choosing the observed classroom as a case in my research design is explained.

As stated earlier, I was interested to explore pupils' personal meanings and subjective experiences (Hammersely, 2007) during their routinely organized classroom based group work. Being new to the educational system of the country where this research was conducted, I worked in a local primary school as a volunteer for a year in order to gain a fuller understanding of the school system and teaching practices before starting my field work. During that period, I was responsible for assisting the class teacher in lessons and helping pupils with their class work, in both classes of Key Stage 1 (Years 3 and 4). Being part of the school for more or less a year, relationships were built with staff members, even sharing recipes of delicious Asian dishes with them during break time. Goodwin et al. (2003) refer to this as "enculturation" through which people learn appropriate values of the context they are participating in for their research purposes. I tried to develop my relationships with the pupils and their parents as part of the enculturation as well, and consider that sharing a South-Asian background with most of the pupils was an important aspect, enabling me to become an insider in the school community. Very often, I worked as an interpreter for teachers to communicate with parents speaking Urdu and Punjabi.

My familiarity with the school context before embarking upon my field work helped to develop close relationships with the pupils and their class teacher in order to conduct my actual research with them. According to Punch (2002), building rapport with children for the sake of conducting research with them is important. Researchers can adopt various skills and strategies aligning with the children being researched in order to enhance rapport with them, and to present themselves as being more

trustworthy. Punch (2002) reported on one of her classroom based pieces of research and suggested rapport building amongst the beneficial methodological stances to involve children in research. I felt my closeness with the pupils of the particular classroom could help to investigate their educational lives with in-depth detail. Therefore, I negotiated with the head teacher to convince her to collect data for my doctoral thesis from the same school while working with the same pupils.

I received a positive response and the head teacher agreed to carry out this research project in her school. I arranged a meeting to negotiate the consent forms with the deputy head and the class teachers to begin my actual field work. After the summer holidays, when I visited the school to begin my field work, the pupils I worked with before had now moved up to Year 5, and I was told by the head teacher that I would conduct my research with the same pupils in Year 5. The class teacher for Year 5 had also been changed, and therefore I worked with another teacher, who was new to the school. I was introduced to her by the acting head teacher, and arranged a meeting to explain my project's details. I gave her the information sheet (see Appendix 02) and consent form, so that she could decide about her participation. We shared email addresses and further contact details, and I was happy that she replied positively. I arranged a meeting with the class teacher to share my data collection plans and processes which made me feel that I was in the field.

3.3.2 The selection of sub-cases (sampling of the participants)

The pupils in Year 5 were familiar with me due to previously volunteering in their classroom. I gained permission from the school, class teacher, pupils and their parents to conduct my research with them (see further Section 3.7). Initially, I observed all pupils in Year 5, and their routinely organized group work in order to survey of the all pupils enrolled in that particular classroom (see Chapter 3, Section 3.5.2). After one month, I selected two pupils from three high, average and low ability groups as a sample for my research, while using purposive sampling. The selected six pupils from the three ability groups were sub-cases in the case study of the particular classroom in my research.

Purposive sampling is a process of selecting participants due to their known characteristics which can help researchers to explore relevant answers in their studies (May, 2011, p.95). It is known as a deliberate selection of the research respondents due to their distinctive qualities (Bernard, 2002), which in my case was choosing

particular pupils because they belonged to a particular ability group (i.e. high, average and low). Unlike the quantitative, researchers in qualitative inquiries do not mainly focus on the number of cases to reliably represent the whole system (Luborsky and Rubinstein, 1995). They are more concerned with exploring the components of the researched world or context which can provide a representation of it. Purposive sampling is a sampling technique which less emphasises on generalisability and allows researchers to collect rich data by understanding the ideas of those people selected as a sample (Holloway, 1997). Researchers use purposive sampling to choose a group or a number of individuals in whom they have an interest and whom have had knowledge and experience of the researched phenomenon while using qualitative research.

The purposive sampling is a non-random technique for recruiting participants, therefore, can be justified without giving theoretical or numerical rationales for selecting sample (Bernard, 2002). By using purposive sampling, researchers outline criteria to identify people who can willingly impart their knowledge and experience relevant to their research aims (May, 2011). Similarly, pupils were recruited from three different ability groups to ensure the equal representation of all ability based (i.e. high, average and low) groups in my research. By using purposive sampling, two participants were selected from each ability group due to their belonging with particular fixed ability to observe their interactions and perceptions of group work. The selection of the participants (who are given pseudonyms) is explained in the following table:

Table 3: Participants selected for individual observations

Participants	Ability Group	Age	Gender
Rafique	High	10	Male
Summaira	High	10	Female
Isma	Average	9	Female
Ahsan	Average	9	Male
Danial	Low	9	Male
Farkhanda	Low	9	Female

The pupils selected from each ability group were nine to ten years old. They were selected due to their belonging in a particular ability group, in order to observe their interactions with their peers under different grouping structures organized by the class teacher in that particular classroom.

Due to being a non-random technique purposive sampling cannot be objective or biased free for choosing research participants (Bernard, 2002). There can be possibilities for researchers to choose participants on a convenience basis or while following the recommendations of other knowledgeable persons. To guard against such biases, I negotiated with the class teacher a clear rationale behind choosing pupils from all three ability groups. I only consulted her to share the attainment levels of the involved participants, which helped me to identify pupils' placements in particular ability groups. Furthermore, the technique of conducting an initial survey to observe all pupils of the classroom also helped me to choose the right participants for an effective representation of all three ability groups in the particular classroom.

The class teacher of Year 5 was also involved as an informant. I did not intend to evaluate the effectiveness of her teaching in organising group work. However, she was interviewed to share her rationale for organising group work in particular forms (see Chapter 4, Section 4.4). She was occasionally consulted to gain insider knowledge about the group skills of pupils and their placements in various groups, who were observed and interviewed during the field work. She also played a significant role in the overall process of data generation, as explained further (see further Section 3.5).

3.4 Research Instruments

As stated earlier (see Chapter 3, Section 3.1), I intended to explore pupils' interactions and their perception of classroom based group work while participating in the natural setting of the primary classroom. I used unstructured participant observation and informal conversational interviews as the main research instruments to gather information relevant to pupils' interactions and their perceptions of group work. This processes of using research instruments is described in the following sub-sections:

Section 3.4.1 explains the processes of using unstructured participant observation for observing pupils' interactions during their routinely organized group work. It also reflects on the processes of recording observations and aspects as a participant observer in the field.

Section 3.4.2 explains the processes of using informal conversational interviews for exploring pupils' perceptions of group work organized in their classroom.

3.4.1 Unstructured participant observations

Unstructured participant observation was used as a method to observe pupils' interactions during their routinely organized group work. As mentioned above (see Chapter 3, Section 3.2), I wanted to participate in the observed classroom, and not just as an outsider researcher only. I also desired to present myself as an insider and a member of the particular classroom, therefore, I involved unstructured participant observations for observing pupils' interactions in groups in the natural settings of the observed classroom.

While being a participant observer, I immersed myself in the social world of the particular school to closely observe pupils' interactions in the natural environment of a classroom. This helped to get close to my research participants and be a part of their community (Blommaert and Aa, 2011). I did not act as an external researcher, and tried to participate in all educational activities of the observed classroom in order to extend my relationships with my research participants (see Section 3.5). I perceived my research participants as social beings and representatives of their educational institutions (Blommaert and Jie, 2010) after participating in their daily based educational activities for a long period of time. I was presented with opportunities to hear, see, feel and observe pupils' interactions and how pupils' interactions can be influenced by the context. I was able to gain an awareness of pupils' individual meanings (Hammersely and Atkinson, 2007) towards social interaction in their classroom. My long-term participation in the research field led me to become close to my research participants in order to gather the data relevant to my research focus.

The use of unstructured observation enabled the adoption of a research design with an emergent nature (Schutt, 2006). This helped to ensure flexibility in the overall process of observing my research participants. I managed to incorporate many changes to address dynamic and unforeseen scenarios while gathering data from the research field. This research was conducted with real people performing real learning practices in a real social environment (Hornberger, 2009). Therefore, I relied on the natural occurrence of data rather than applying predefined measures and hypotheses to observe the research participants. With a focus on preventing the creation of artificially contrived conditions (Creswell, 2012) in the natural settings of the

particular classroom, I also avoided commanding my participants to do what I wanted to see or observe (Barbara, 2005) by completing structural tools and research instruments. I ensured that my participants were free and independent to work as naturally as they would during their routine lessons.

3.4.1.1 Processes of recording observations

In this section, the processes of using an observational checklist, field notes, and digital voice recorder to record my observation of pupils' interactions during their routinely organized group work, are explained.

In the beginning of observation, an observational sheet (Appendix, 06) was used to record pupils' interactions and actions during their group work. The observational sheet was comprised of specified collaborative actions including various group based social and communicative roles, rules and skills of working with others effectively (Baines, 2009, Gillies, 2014, Dekker, et.al, 2006, Webb and Mastergeorge, 2003, and Tolmie, et.al, 2010). Generally, pupils are expected to use these actions in order to regulate their actions and interactions while working with others in groups (Powell and Kalina, 2009).

I used the observational sheet while observing pupils' interactions during their group work. However, after observing a few lessons, I found it hard to use the observational sheet. I was actually determined to record during their group work, and wanted to take a full account of pupils' group work including their interactions, actions, conversations, existing context and physical settings of their group work (Sapsford and Jupp, 2006, p.82). I wanted to note details of the context in order to provide a contextualised description of the events observed in the field (Fabain, 2008). I realised that it became difficult to categorize pupils' actions and their interactions soon after observing them. I found it difficult to complete the small boxes with details while sitting near my research participants and observing their interactions. Compared to the checklist, I found writing open-ended and unstructured field notes less confusing to record details of the events and overall physical context of pupils' interactions.

Field notes: Notes of pupils' actions and conversations during their group work were taken, including information about the physical settings of the group structure, its composition, and the particular lesson or activity in which pupils were involved. Pupils' verbal and non-verbal expressions and body movements were focussed on, noting any of their particular emotions and positive and negative responses towards

their peers, in order to analyse the nature of their interactions towards peers under a particular group. While being in the field, I jotted down the above-stated information in words and in incomplete phrases, and then I filled in the incomplete phrases and sentences soon after the observations, in order to record most of what had been noticed in the field.

Audio recording of pupils' conversations: A digital voice recorder was used as an additional device to record pupils' conversations during their group work. Consent for recording pupils' conversations digitally was granted from the pupils themselves, their class teacher and their parents (see Appendices 03-05). The voice recorder was an unusual instrument which the pupils had not been accustomed to previously. The class teacher allowed me to use the voice recorder noting that "there won't be any issue" (*Informal discussion with the class teacher held in September, 2013*). At first, the recorder was placed in the middle of the table and the pupils were conscious of being recorded. Some of them stayed calm and relaxed. However, I found that some of the girls became rather excited to see it on their tables. Some started singing songs during their work, with some of them saying "hi, hi" to be recorded. One girl from the high ability group, when she found me at her table, always started telling stories of her family.

I negotiated with the class teacher to use the voice recorder invisibly to avoid these small disturbances, to which she agreed. Afterwards, I placed it on nearby bookshelves and other corners of the classroom to make it less obtrusive. The class teacher was aware when and for which group of pupils I was using it. According to Petticrew et al., (2007), the use of covert methods to record information about research participants is always contentious as it can involve a level of deception towards research participants. However, these methods can be appropriate choices to collect objective data to minimise possibilities for biases of social desirability in participative qualitative inquiries (Petticrew et al., 2007). DeWALT and associates in (Kawulich, 2005) advise that researchers inform their participants that the purpose of observing them covertly is to document their activities. Researchers can take field notes publicly to inform research participants that their actions are being noted for research purposes. In my case, I used the voice recorder openly for a few days in order to make research participants, particularly pupils, aware of the processes of using a digital device (voice recorder). The pupils were firstly recorded overtly and were provided with opportunities to become familiar with the recorder. They were also

aware of my presence in their classroom as a researcher who was observing and noting their group based interactions. However, the decision to record their group discussions covertly on to a voice recorder was taken to maintain natural actions and classroom discipline.

Permission was obtained from pupils' parents before recording their children's group conversations covertly. Parents were informed in the information sheet (see Appendix 04) that their children might be recorded covertly in order to keep their actions/conversations natural while observing their group work. I preserve the anonymity of the observed pupils by using pseudonyms in order to present them as less identifiable, and to maintain confidentiality of their recorded discussions in the final write-up.

I recorded pupils in their regular lessons in order to make the recording process less obtrusive, therefore, I could not stop most of the less significant voices and conversations that took place during the lessons. I was content that I tried to capture detailed descriptions of the event, but ended up having long and low quality sounds which were difficult to transcribe. At the end, I merged the transcriptions and field notes in order to obtain more detailed accounts of the activities that I observed in the research field. I present an example of the field notes and audio transcription in the appendix (see Appendix 07).

3.4.1.2 My role as a participant observer in this study

This section addresses my role as a participant observer while being in the field. I feel it worthy to explain my role as a participant observer because "I" worked in the field while observing my research participants collect data from the research field. "I" or "myself" may have influenced the ways (Hammersely, 2008) that I observed my participants. Moreover, "I" am the one who is now bridging the gap among the participants and readers of this study after the field work. To some extent, it very much depended on me to record what took place in the field, and how would I portray/depict this for readers (Erdemir and Ergun, 2010). Therefore, I was very conscious of my presentation and presence in the field and also the extent to which I remained neutral while observing, describing and interpreting the findings of my study. The aspects of my identity as a participant observer can be explained in the following ways:

My social background: My social background (South Asian) was both advantageous and disadvantageous while observing pupils during a participative field work. I

consider it advantageous because the majority of the pupils shared the same ethnicity as me. Sharing of ethnicity with pupils helped to build strong relationships with them, and also supported me to understand and analyse the role of pupils' socio-cultural background influencing their interactions. I was perhaps more equipped to connect with pupils' parents due to sharing cultural and religious commonalities with them.

On the other hand, I also considered my social background as disadvantageous because it was different from the background of the class teacher and the majority of the staff in that school (White, British). Although, the school was very supportive and welcoming towards people from diverse cultures, I still felt that the class teacher might have felt more comfortable working with a researcher sharing cultural commonalties with her. We would discuss weather, the school and area in our free time. However, when she had another volunteer (an English girl) in her classroom for a few days, she chatted a lot about T.V programs, musical bands and pubs around the city. She was cooperative with me and helped me as much as I needed. However, I felt that having a similar background might have helped to eliminate the strangeness (Shah, 2004, p. 556) between myself and the class teacher. It might have helped us to build more trust with each other more immediately, which might have occurred due to having differences in our cultural orientations.

My educational and professional level: During my volunteer work at the beginning of my field work (see further Section 3.5), I discussed with the class teacher about pupils, their specific behaviours and learning styles. However, I stopped expressing my viewpoints on any matter relevant to the pupils or the classroom besides my research. I feared that my theoretical knowledge may serve as an obstacle or barrier in building harmonious relations with the class teacher. For instance, Fatima was a new girl from Africa in that classroom. Before starting my observations, I worked with Fatima as she was in the low ability group. She sometimes refused to adopt new methods of calculation and insisted on repeating the method that she had learnt in Africa before coming to England. I discussed with the class teacher the gap in the learning method that Fatima had found and was therefore failing to solve the questions. The class teacher admitted that she learned a lot in her training about the ways of dealing with pupils new to school and having different backgrounds. Nevertheless, she emphasized that she could not practice all those strategies in her classroom, and also emphasised that there are many areas learned in universities that we cannot always apply in the field.

After that, I portrayed myself as a novice in the field in order to allow her to feel that she was the class teacher so she would be more equipped than I to understand her pupils. I also started sharing my worries of conducting field work as being a research student. After that, I found her emphatic and intimate (Hockey, 1993) as sometimes she wished me good luck for my studies. In return, she also shared her concerns of being observed by her head teacher. Thus, such types of small commonalities appeared to bridge the gaps of any awkwardness (Shah, 2004) between us.

My prior familiarity with the school while the class teacher was new there: I was familiar with the school because of my previous work experience there. On the other hand, the class teacher that I was working with was newly-appointed there. My prior familiarity with the head teacher and school might have pressurised her to participate in my project in all cases. She might have decided differently had she been at the school for more time than I had.

3.4.2 Informal conversational interviews

I used informal conversational interviews to explore pupils' thinking and perceptions about group work, its organisation, and also their experiences of working in different groups organized in their classroom. I conducted interviews with pupils from Year 5 who were nine to ten years old (see Chapter 3, Section 3.3.2). I wanted to enable pupils to control the pace and direction of the conversation, and to raise and explore their perspectives with relatively little researcher input (Mayall, 2008, p.120). Therefore, I used informal conversational interviews (Punch, 2005, p. 175) to probe my research participants' thinking and opinions about their group work informally.

Informal interviews taken in the form of informal conversations are considered as a convenient and informal way of exploring peoples' perceptions (Croker and Heigham, 2009). Yet, they are sometimes ineffective in generating the relevant data (Heigham and Croker, 2009). Interviewers are generally advised (Punch, 2013) to decide settings, identification of the involved participants, and techniques for recording conversations before administering them. Therefore, I prepared a semi-structured interview guide (see Appendix 08) comprised of information about participants, as well as the place and time of the informal interview. This also included less-specific lists of issues (Bryman, 2012) linked with group based actions, skills and processes, which pupils may experience while interacting and working with others during group work.

While interviewing pupils in the second phase, I also added some questions relating to the pupils' actions that I observed in the first phase of the field work (see Appendix 09). I reminded some of the pupils of their actions that I recorded while observing their group work. The purpose behind reminding pupils of particular prior actions was to explore their perspectives/rationale of their interactions with others. After finding any pupil struggling or unable to convey the exact idea, I sometimes skipped a few questions during these informal interviews as presented in the example of the interview's transcript (see Appendix 10).

The informal interviews took place in a small intervention room adjacent to the classroom. After gaining consent from the pupil and class teacher, I conversed with the pupils in the relaxing and quiet atmosphere of the designated room. I found two of the participants to be nervous, with one of them initially refusing to be interviewed in the first phase of the data collection. However, after a month she changed her mind and wanted to be interviewed, after hearing her classmates talking about their informal conversations with me.

The research participants, including the pupils and the class teacher, were asked before the interviews if they were happy to be recorded. It was mentioned in the information sheet that a digital audio recorder would be used while administering informal conversations to record respondents' perspectives. The head teacher, class teacher, pupils and their parents granted their consent (see Appendices 02-05) and allowed me to record their interviews before the beginning of my field work. However, Renold et al. (2008) assert that informed consent in participative research inquiries is not limited to gaining non-ambiguous permission and the signing of agreement forms. Therefore, on each occasion when I intended to record an interview, the particular participant was asked again, including the class teacher and pupils (whether they want to be recorded or not). Nearly, all of the pupils that were selected for informal interviews agreed to be recorded, except for one pupil from the average ability group. She asked me not to record her interview with a voice recorder, but agreed that I could take notes from the interview instead. During the interview, she kept reading my notes to make sure that I had not missed any of her points. Pupils were asked to confirm their answers/responses consistently during their informal conversational interviews. I reassured pupils about what they had said by asking questions such as: "Is this what you mean" or "are you saying" I felt happy

when some pupils denied their responses, and said: “No, I was saying this this ... I did not mean that but I think it is”

I also gained permission from my research participants to share their responses in various formal and informal academic discussions (see Appendices 02, 03 and 04) while respecting their rights of ownership (Prosser and Schwartz., 1998). Similarly to observational data, I used pseudonyms for my research participants while sharing their interview responses in public academic spheres, in order to make them less recognisable.

The two semi-structured interviews with the class teachers were conducted in the classroom at the end of both phases of data generation (see further Section 3.5). The information regarding group organisation in the particular classroom was explored from the class teacher in her interviews. She was also asked to share her understanding of the group skills of the pupils who were observed and interviewed during the field work. She was invited to reflect on the transcriptions of both her interviews at the end of the data collection. She was asked to add or delete any points that she did not want to be part of her interview, however, she did not change anything and trusted my transcriptions. The interview data that related to pupils’ perceptions of group work was not shared with the class teacher, in order to respect pupils’ rights of confidentiality.

3.5 The processes of data collection

This section explains the processes of the data collection. In the previous chapter, I mentioned that the importance of the active involvement of the pupils and class teacher has now been realised in the existing literature on pupils’ interactions and group work (see Chapter 2, Section 2.8). Therefore, I intended to build a collaborative partnership with my research participants in order to enhance their contributions in the research process (Somekh, 2006). I attempted to empower my research participants, particularly the class teacher, to present herself as a co-researcher to provide insider perspectives on the various situations that arose during the overall process of data collection. This active involvement of the class teacher and her pupils appeared to ensure the requirements of producing democratic knowledge (Somekh, 2006) relevant to pupils’ interactions and their perceptions of routinely organized group work.

I also intended to provide opportunities to the class teacher to act as an educational practitioner (Koshy, 2010) while generating data flexibly from the research field. I desired to assist her to identify the best ways to advance the quality of social interaction among pupils by improving group based teaching strategies in her classroom. Therefore, I actively involved the class teacher while generating data from the field. I followed some sort of cyclical process to observe pupils' group work, to identify problems related to pupils' non-cooperation, and to plan and implement interventions after consulting the class teacher. The application of the participatory and flexible processes of data collection led me to reflect on the processes of conducting research in educational settings, as explained further (see Chapter 7, Section 7.3). The processes of collecting data from the research field are explained in the following sub-sections:

3.5.1 Planning field work and making myself familiar with the research setting

I began the fieldwork in the middle of September 2013, after negotiating access with gate keepers, including both the head and class teachers. In the initial weeks, information sheets were given to pupils and their parents in order to access their consent as explained further (see same chapter, Section 3.7). I also attempted to gain familiarity with the classroom context and settings while working solely as a helper. I started networking with pupils and their class teacher in order to build relationships with my research participants. I therefore visited the particular classroom regularly to become more informed about the pupils, teaching activities, and the classroom's timetable. These activities appeared to help me to understand what to observe and from whom to gain information as a researcher (Bernard, 1994), as previously explained in the unit on sampling (see above, Section 3.3.2). The process of building and sustaining trust and healthy relationships as a participant observer was not straightforward. I faced a few problems due to my presence in the field, as elaborated on further (see Chapter 3, Section 3.7).

3.5.2 Phase # 01: Observing pupils' interactions in the classroom

In the first phase, I shared observational plans with the class teacher before starting my observations, as she was now acting as a research partner in the overall process of data collection. I gave her enough time to consult her weekly planned timetable and teaching plans to accommodate my observing plans. After this negotiation, I observed

pupils' group work in their routinely organized (fixed & mixed) ability groups separately as shown in the table below:

Table 4: Observational schedule for observing pupils' group work

Group	Number of Participants	Lesson	Date	Duration
Low ability	6	Numeracy	07/10/13	50 min
Average ability A	4	Numeracy	09/10/13	30min
Average ability B	5	Numeracy	09/10/13	50 min
Average ability C	5	Numeracy	21/10/13	40min
High ability	6	Numeracy	08/10/13	30 min
Mixed ability pairs	11	Literacy	08/10/13	40 min
Mixed ability group	6	Science	21/10/13	55 min

This table shows the observational schedule for observing pupils in their routinely organized ability based (fixed & mixed) ability groups. It shows information about the group's composition and lesson in which the particular group was observed. It also mentions the date and time of observations to share when the particular group was observed and for how long.

After observing all groups of pupils in the particular classroom, I chose two pupils from each (low, average & high) ability group (see Chapter 3, Section 3.3.2) to observe their interactions with their peers in a group setting. I observed the selected pupils to note their interactions with their peers with similar abilities, while observing fixed ability group work, as shown in the table below:

Table 5: Schedule for observing pupils in their fixed ability groups

Participants	Group	Lesson	Date	Duration
Sumaira	Average ability	Numeracy	13/11/13	50 min
Farkhanda	Low ability	Literacy	16/11/13	65min
Ahsan	Average ability	Numeracy	19/11/13	59 min
Isma	High ability	Numeracy	20/11/13	55min
Rafique	High ability	1. Literacy	25/11/13	65 min
		2. Literacy	02/12/13	50 min
Danial	Low ability	Literacy	03/12/13	40 min

This table shows the sequence for observing pupils in their fixed ability groups. The chosen candidates were observed in group settings during their literacy and numeracy lessons. I observed one candidate twice in his fixed ability group as shown in the table. During the first observation, I found that he did not behave naturally. The whole group talked about irrelevant topics and involved individual work purposely. Therefore, I observed him in his fixed ability group again after a week.

After observing pupils in fixed ability groups, I needed to observe the same pupils to notice their interactions with peers having different abilities than them. So, I observed the selected pupils in their routinely organized mixed ability groups as shown in the table below:

Table 6: Schedule for observing pupils in their mixed ability groups

Participants	Group's members	Lesson	Date	Duration
Summira	4(3AA ¹ +1 ² HA)	Literacy	12/11/13	30 min
Farkhanda	1 ³ LA+1 HA (Pair)	ICT	9/12/13	48min
Ahsan	6 (4 AA+1LA+1HA)	Literacy	20/11/13	30min
Isma	1LA+1HA (Pair)	ICT	20/11/13	45min
Rafique	6(4 AA+ 2HA)	Science	25/11/13	35 min
Danail	5 (4 HA+1 LA)	Numeracy	02/12/13	50 min

This table shows the structure for observing pupils in their mixed ability groups. The pupils' interactions towards their peers of different academic levels in the same classroom were observed. The mixed ability groups were mainly organized in the afternoon's lessons (see Chapter 4, Section 4.3) including Science and ICT. Occasionally, these were organized in the Literacy and Numeracy lessons during Aspirational Week, celebrated annually in the particular school. Mixed ability group work usually took place in pairs (see Chapter 4, Section 4.5). Therefore, I sometimes observed pupils in their mixed ability groups and sometimes in pairs.

Selected pupils outside of the classroom were also observed, in order to note their interactions with their peers in PE lessons, and in some other group based activities (see Chapter 4, Section 4.2) organized by the school. After observing pupils both inside and outside the classroom for three months, I interviewed the same selected pupils informally in order to explore their perspectives about group work and its organisation, as elaborated above (see same chapter, Section 3.4.2).

At Christmas the school was closed for the seasonal celebrations, during which time I reviewed my observational and interview data to understand it generally. This helped me to redesign the interview guide for the class teacher, for the interviews taking place in January 2014, after the Christmas break. While interviewing the class teacher, I explored her perspectives behind organising group work overall and organising

¹ AA= Average ability group

² HA= High ability group

³ LA= Low ability group

particular (mainly fixed and mixed ability) group structures in her classroom. I included a few questions regarding the group skills of pupils who were observed and interviewed in the first phase. According to the reflections, I altered the interview guide and broadened the focus of my observations to gather more details relevant to pupils' interactions and their perceptions of group work in the second phase, as explained in the section below.

3.5.3 Reflecting on the data and planning for the second phase of field work

During February 2014 I left my fieldwork for a while to work with the data that I had collected in the first phase. I studied my observations and interviews in order to understand the data briefly, and was able to highlight a few concerns about the non-cooperative interactions of the pupils observed in the first phase. In the light of the data on the non-cooperative aspects of pupils' interactions (see Chapter 5, Section 5.4), I proposed a few further activities (see Appendix 01) to guide pupils to regulate their interactions and to involve collaborative interaction with their peers. At this stage, I involved the class teacher as a research partner to intervene in her classroom to introduce activities, which could enable pupils to work as a group. She was given opportunities to assess the given activities in order to decide whether the planned activities could be embedded in her normal teaching plans, or how they could be used in the real setting of the particular classroom.

At the beginning of March, I met with the class teacher in order to share the planned activities with her. I shared some insights from my field notes and observational data to gain her perspectives on the nature of group work involved by her pupils. The information about observational notes relevant to pupils' group work comprised of a list of actions which were performed by pupils during their group work (see Appendix 01). Special care was taken not to reveal pupils' names and other necessarily details that could have made the pupil identifiable, while sharing my field notes of pupils' group work. The purpose behind sharing such details was to enable the teacher to understand my rationale for choosing particular activities, which were designed to address some unsuccessful aspects of group work in her classroom. As part of keeping pupils' responses confidential (see Chapter 3, Section 3.7), the data relevant to pupils' responses recorded during informal interviews with their class teacher were not shared.

The class teacher was given approximately one month to read and incorporate the activities into her normal teaching plans. She also received all the necessary details, including aims, processes and plans, for applying the given activities in her classroom (see Appendix 01). The teacher integrated the given activities into a few Numeracy and Literacy lessons for after the Easter break (see Chapter 5, Sections 5.4.1.3 & 5.4.2.3).

3.5.4 Phase # 02: Applying pre-planned group-based activities in the field & re-observing pupils' interactions

In April 2014, I returned to the classroom to observe pupils' group work. The class teacher informed me anytime between one day and a week before she planned to teach the lessons with the recommended group-based activities. The schedule of planned group-based activities organized by the class teacher is shown in the table below:

Table 7: Schedule for applying group-based activities in the classroom

Activity	Group Observed	Lesson	Date	Time
Training of pupils for group work	-	PSHE ⁴	-	-
Discussion Wheel	Mixed ability group 1 Mixed ability group 2 Mixed ability group 3	Literacy	06/05/14	15 min 15 min 15 min
Debriefing Activity	Mixed ability group 1 Mixed ability group 2 Mixed ability group 3	Literacy	16/05/14	15 min 12 min 15 min

The table shows the organisation of suggested group-based activities (Appendix 01) in the field. The first activity (Appendix 01A) was designed to discuss the groups' rules for involving talks/discussion in groups. It covered various social and

⁴ PSHE= Personal, Social and Health Education

communicative skills for working together cooperatively as a team or in groups. The plan was to organize pupils' discussions in PSHE (Personal, Social and Health Education) in order to raise their awareness about group skills and about the benefits of working together. However, the class teacher did not organize the PSHE lessons in her classroom, and apologised, saying that the lessons were not included in Year 5 and Year 6's term-time planning, as the reason for skipping that activity.

The second activity (Appendix 01B) was designed to generate task-related discussions among pupils in order to illuminate their individual work in groups (see Chapter 5, Section 5.3). This was organized in one Literacy lesson in which pupils were grouped in mixed ability groups. Three groups of pupils were observed for fifteen minutes respectively in order to note their interactions with their peers. I particularly focused on their actions and performance during their work on structured group-based tasks.

The third activity (Appendix 01C) was used to explore pupils' perceptions about the group work which they participated in during their lessons. This was organized in the Literacy lesson in which pupils were divided into mixed ability groups. Each group was observed for 15 minutes, however one of the groups was only observed for 12 minutes due to the lesson time finishing. Afterwards, I observed pupils in their usual groups for a week during May and June.

The pupils were interviewed informally for a second time in May and June, 2014, as well as a few other pupils from the class who wished to be interviewed. I took them away from the classroom depending on their availability while being a less obtrusive researcher, and explored their experiences of working with their peers while working in groups. The details regarding procedural and ethical protocols to conduct these informal interviews with pupils and their class teacher have been discussed previously (see above Section 3.4.2).

At the end of the second phase I interviewed the class teacher in order to explore her thinking about the application of activities in her classroom. I shared the transcriptions of the class teacher's interview with her to ensure the validity and trustworthiness of her responses (Mercer, 2007). She agreed with the transcriptions and returned back to me without editing any information. The regular field work was finished in July, 2014, however, we decided to meet again for a short meeting to reflect on the research processes involved in her classroom to get relevant data. We arranged a time in the

middle of September 2014, during which I explored her perceptions of participating in my research and this marked the actual end of the field work.

3.6 The analytical approaches / data analysis

A huge amount of qualitative data was collected in the form of descriptive field notes and observations (see Chapter 3, Section 3.4.1) for almost a year. Therefore, a regular record was kept in order to note what and how much data had already been collected, and what and how much still needed to be collected. The processes of analysing data are explained in the following sub-sections:

3.6.1 Initial analysis

I transcribed all of the audio data as part of an initial step of qualitative analysis (Bernard and Ryan, 2010). I faced difficulties in understanding some words which were probably slang /colloquial terms due to the Yorkshire dialect. Family members assisted with correcting those misunderstood and confused words in the transcriptions. Observations in a classroom setting (see Chapter 3, Section 3.4) were voice recorded, but the recordings were of poor quality due to the background noise, and therefore some pupils' utterances remained inaudible in some places of the recording. I used the qualitative data analysis software Nvivo version 10 to document the transcribed data. I labelled both observational and interview extracts into several loose categories/themes that emerged from the data. The repeated and similar nature of pupils' interactions and their perceptions are enlisted in one category, as shown in the figure below:

Name	Sources	References	Created On	Created By	Modified On	Modified By
Blaming each other	2	2	07/04/2014 15:24	A	03/10/2014 15:04	A
discussing the given tasks	1	1	25/11/2014 09:37	A	25/11/2014 09:37	A
Dont have choice to choose partner	2	2	11/02/2014 14:09	A	03/10/2014 15:05	A
Feeling Anxious during interview	2	4	11/02/2014 14:15	A	03/10/2014 15:05	A
focus on dividing boxes	2	3	25/11/2014 09:35	A	25/11/2014 10:06	A
seperating boxes	1	2	31/10/2014 13:39	A	31/10/2014 13:44	A
Group as a whole presenting their ideas	1	2	25/11/2014 10:03	A	25/11/2014 10:04	A
individual work within group work	1	1	25/11/2014 09:31	A	25/11/2014 09:31	A
Keep trying	2	2	11/02/2014 12:06	A	03/10/2014 15:04	A
Looking for easy task	6	6	10/02/2014 12:42	A	03/10/2014 15:04	A
Methodological issues or contextual issues	0	0	27/03/2014 15:10	A	07/04/2014 12:27	A
Distruption in carrying out observation	2	2	10/02/2014 11:01	A	03/10/2014 15:04	A
Using voice recorder	8	8	07/02/2014 16:27	A	03/10/2014 15:05	A
Not able to identify mistakes	8	12	10/02/2014 11:15	A	03/10/2014 15:05	A
Not taking part	4	4	10/02/2014 18:15	A	03/10/2014 15:04	A
Participating in discussion	8	10	11/02/2014 10:32	A	03/10/2014 15:04	A
High achievers' participation	12	16	27/03/2014 12:19	A	03/10/2014 15:04	A
Participating in lesson	4	6	11/02/2014 12:46	A	03/10/2014 15:04	A
Perceptions of students about group work	0	0	27/03/2014 15:13	A	07/04/2014 12:27	A
Aware of abilities and academic levels	2	8	11/02/2014 14:19	A	03/10/2014 15:05	A
Aware of set groups	8	18	11/02/2014 13:51	A	03/10/2014 15:05	A
complains about group members	6	8	10/02/2014 17:58	A	03/10/2014 15:05	A
Dislike groups for irrelevant discussion	6	8	11/02/2014 14:00	A	03/10/2014 15:05	A
Do not prefer mixed abilities groups	4	4	11/02/2014 14:24	A	03/10/2014 15:05	A
Group what do you mean	8	12	11/02/2014 14:03	A	03/10/2014 15:05	A
Like groups for discussing lessons	10	16	11/02/2014 13:57	A	03/10/2014 15:05	A
Nature of group's discussion	6	6	11/02/2014 13:54	A	03/10/2014 15:05	A
Prefer to work with different people	8	10	11/02/2014 13:59	A	03/10/2014 15:05	A
Prefer to work with friends	8	12	11/02/2014 13:56	A	03/10/2014 15:05	A
Prefer working alone	2	2	07/04/2014 12:27	A	03/10/2014 15:05	A
Unaware of Abilities and academic's levels	2	2	11/02/2014 14:56	A	03/10/2014 15:05	A
Unaware of set groups	6	6	11/02/2014 14:04	A	03/10/2014 15:05	A
Work on different tables	4	4	11/02/2014 13:55	A	03/10/2014 15:05	A
Work on same table	2	2	11/02/2014 14:06	A	03/10/2014 15:05	A
Phase two data	3	11	25/11/2014 10:27	A	25/11/2014 10:28	A
Prompting their views about intervention	2	2	11/02/2014 14:14	A	03/10/2014 15:05	A

Figure 5: Initial categories derived from observational and interview data

I used indigenous categories defined as local terms present in the data (Bernard and Ryan, 2010, p.57) to label pupils' interactions and perceptions. I mostly labelled pupils' actions by using terms such as *blaming each other*, *not listening*, *ignoring each other*, *sharing work with each other*, *awareness of group ability*, *a dislike of ability groups* as enlisted in the above figure. Later, broader terms were used after consulting the literature on group work and pupils' interactions (see Chapter 2, Sections 2.3 and 2.4) to categorise pupils' actions and their perceptions in understandable labels, as shown in the figure below:

Name	Sources	References	Created On	Created By	Modified On	Modified By
Co-operative interaction	0	0	27/03/2014 11:42	A	27/03/2014 11:24	A
Encouraging each other	4	6	27/03/2014 11:42	A	03/10/2014 15:04	A
Helping attitude	18	20	27/03/2014 11:42	A	31/10/2014 15:04	A
Methological issues or contextual issues	0	0	27/03/2014 15:18	A	27/03/2014 15:15	A
Non co-operative interaction	0	0	27/03/2014 11:43	A	27/03/2014 11:27	A
Being rude to others	14	20	27/03/2014 11:43	A	03/10/2014 15:04	A
Competition among peers	0	0	23/12/2014 13:15	A	23/12/2014 13:17	A
Complained of being copying	18	22	27/03/2014 11:43	A	03/10/2014 15:05	A
Gender Division	20	24	27/03/2014 11:58	A	23/12/2014 13:17	A
Ignoring peer's feedback	8	12	27/03/2014 11:43	A	03/10/2014 15:04	A
Not encouraging each other	8	8	27/03/2014 12:07	A	23/12/2014 13:17	A
Not listening to each other	2	8	07/04/2014 12:28	A	23/12/2014 13:17	A
Not sharing points	7	9	27/03/2014 11:43	A	23/12/2014 13:17	A
Not willing to take help	8	10	27/03/2014 11:43	A	23/12/2014 13:17	A
Taking over	10	22	27/03/2014 12:18	A	23/12/2014 13:17	A
Perceptions of students about group work	0	0	27/03/2014 15:16	A	27/03/2014 15:15	A
Students' action during group work	0	0	27/03/2014 15:06	A	27/03/2014 15:03	A
Coco Land	2	2	27/03/2014 15:06	A	03/10/2014 15:04	A
Dividing work or sharing responsibilities	4	4	27/03/2014 11:42	A	03/10/2014 15:05	A
Not finding lesson interesting	10	12	27/03/2014 15:06	A	03/10/2014 15:04	A
Not listening to instructions	16	24	27/03/2014 15:06	A	03/10/2014 15:04	A
Prefer to take help from Teaching assistant	16	26	27/03/2014 15:06	A	03/10/2014 15:05	A
Prefer to work individually	18	30	27/03/2014 15:06	A	17/10/2014 15:56	A
Working individually	20	38	27/03/2014 15:06	A	03/10/2014 15:05	A
students' off topic talk	0	0	27/03/2014 11:42	A	17/12/2014 17:25	A
Talking about irrelevant things	28	28	27/03/2014 11:42	A	03/10/2014 15:05	A
students' talk on topic	0	0	27/03/2014 11:41	A	17/12/2014 17:24	A
Discussing task	22	32	27/03/2014 11:41	A	17/12/2014 17:24	A
Explaining task	10	12	27/03/2014 11:41	A	17/12/2014 17:24	A
Views of class teacher	0	0	27/03/2014 15:17	A	27/03/2014 15:15	A

Figure 6: Refined categories of observational and interview data

Terms of cooperative and non-cooperative interactions, off-task and on-task talk, and gender division were used to enlist pupils' interactions. The terms of group composition, experiences of working in groups and preferences to improve group work were used to enlist pupils' perceptions about group work.

3.6.2 Deep analysis

I used discourse analysis to deeply analyse the observational data which was in the form of pupils' informal conversations, formal dialogues on the given task, verbal and non-verbal interactions. Discourse analysis is defined as a philosophy to study language as a social performance and action which creates and also represents social phenomenon (Morgan, 2010). It is defined as an 'umbrella term' encompassing many analytical tools to understand the social world of the participants by analysing their discourses. It studies languages as a functional tool to build and to understand

participants' interactions with their social world (Gee, 2011b). It perceives participants' language as reflections of their associations with various social and cultural groups (Gee, 2011, p.176). It analyses participants' interactions not only in the form of spoken words, but also as a representation of their social, institutional and cultural backgrounds. Language is used to explore the situated meanings contributed by the participants in their specific social contexts.

To undertake discourse analysis, there is not any one agreed approach (Gee, 2011b). Researchers adopt different tools/theories of discourse analysis in order to analyse data (Morgan, 2010) to explore the answers for their distinguished questions. In my research, I was interested in exploring pupils' discourses and in using this as a tool in order to understand the nature of their actions in the social context of a primary classroom. I was interested in examining the influences of physical conditions, group composition and lesson activities on pupils' interactions. I also wanted to identify the role of group structure on affecting pupils' interactions, and making it favourable or unfavourable for collaborative group work (see Chapter 5, Sections 5.3 and 5.4). The following three analytical tools of discourse analysis were used, which helped to achieve these aims.

The Fill in Tool: The "Fill in tool" mentions physical settings, the bodies, eye gaze and movements of speakers to understand their contexts. It assists researchers to draw the meaning of what has been said in a particular social setting (Gee, 2011a). By using the "fill in tool", I described the physical setting of pupils' interactions. I included details of their physical place, non-verbal expressions and movements, and the learning activity/task allocated to pupils to work in groups. In this regard, my field notes assisted me a great deal to recall the information about settings, participants and given tasks. My decision for writing Chapter 4 to describe classroom context, its physical and educational structure, is also influenced by this tool. These intensive details of the classroom context enabled me to understand the physical settings of pupils' interactions, and helped me to access the unspoken and unrevealed messages regarding the role of classroom context in making pupils' group work effective or ineffective as elaborated further (see Chapter 5).

Building Things in the World: This tool uses language as a means for building things or to perform actions in actual contexts. It asserts that people build and rebuild different actions and performances in the real world by speaking (Gee, 2011a). By using language as a functional tool to build things, I was able to identify the various

roles performed by pupils. This helped me to identify the nature of pupils' interactions as cooperative and non-cooperative (see Chapter 5). I analysed pupils' discourses to identify the significance that they attributed to their actions, for example, talking about their individual work (see Chapter 5, Section 5.4) or talking about their distinguished ability groups (see Chapter 6, Section 6.4). This helped to identify how pupils used languages to perform certain activities, which include talking and discussing the task, using words to positively interact and help one another, asking questions about the task, giving and receiving general help to and from one another.

Pupils also used language to negatively interact with one another, for instance, they appeared to accuse one another of copying their work. They prioritised their individual work, ignored their peers and replied negatively (see Chapter 5, Section 5.4) by using language. By focusing on pupils' spoken words, I explored that pupils used language to form their identities while interacting with their peers. This helped to identify who played the role of helper, and who received help (see Chapter 5, Section 5.3) while working in groups. I was also able to analyse when pupils acted as helpful peers or when they were proving to be unhelpful peers during their group work.

The Big “D” Discourse Tool: Gee (2011a) coined the term ‘big D’ to indicate that participants do not always speak as individuals, and are often connected to various social and cultural groups (Gee, 2011, p.176). The ‘Big D’ tool emphasizes that participants' actions, interactions, languages and spoken words represent their social, institutional and cultural settings. It analyses language as a social tool to explore the situated meanings that participants contribute to and express through using various words in a specific context (Gee, 2011b). This ‘Big D’ tool is used to analyse participants' roles, identities and responsibilities specified by the context and expressed by them by using languages and words (Dijk, 2011, p. 191).

I used the ‘Big D’ tool to identify the role of context in influencing pupils' performances during their routinely organized group work. For instance, I was able to identify the role of the classroom in forming pupils' attainment based identities, which appeared to affect their interactions and relationships with their peers. I noticed that pupils talked about their academic levels and ability-based differentiation by becoming influenced by the ability-based differentiated organisation of their classrooms. I was also able to understand relationships between pupils' classroom and home contexts when they uttered words to create competition and gender division during their group work (see Chapter 5, Section 5.5). The ‘Big D’ tool helped to

identify the relationship between pupils' immediate and wider contexts in influencing their interactions (Bryman, 2012, p. 529) as explained further (see Chapter 7).

Here I provide an example of using the above mentioned three tools to analyse my observations and field notes:

Tool no 1: Fill in tool: This is used to describe what was said and the context in which it was said, what is not being said or assumed to be said to infer the unsaid (Gee, 2011, p 194)

*Sumaira: where's my thing gone [while looking something at the table]
Sumaira: Yeah! This is my page [taking a page from the table].... you have taken aren't you? [Asking to Numen] Miss he is taking my pages. Misshe is copying our work (Mixed ability group work at 12-11-13 at 11:30-12:00)*

The description of the scene by noting details of participant's actions of looking and grabbing pages from the tables (explained on p104) helped me to infer that she did not trust her colleagues to share her work openly, and later blamed them for copying, which the boys were not.

Tool no 2: Building things in the world: This is used to ask not just what the speaker is saying but to focus on what how they create and shape the context for listeners (Gee, 2011, p198)

*Babar: why have you written 26?
Ahsan: it's partitioning
Babar: it's not partitioning. We are doing division man.
Ahsan: **no I'm right.**
Babar: I am telling you how to do it
Ahsan: **no I'm doing my own I can do itmiss gave me my own sheet.**
(Fixed ability group work on 21-10-2013 at 10:05-10:40)*

The emphasis on how words are said helped me to identify that Ahsan was being competitive while ignoring his peer's feedback. He first refused to admit that he was wrong and then appeared to be confident that he could do his work alone and did not need anyone's help. He further mentioned the class teacher who gave him individual work as evidence to strengthen his views that he was able to do the work by himself while being competitive. The tool helped me to analyse how the participant prioritised individualism and then how he took influence from the teaching method and learning task to work individually, despite sitting in a group setting.

Tool no 3: The 'Big D' discourse: This is used to identify what sorts of actions, interactions, values, beliefs and objects, tools and environments are associated with this sort of language within a particular discourse? (Gee, 2011, p201)

*Farkhanda: **where is rubber?**
Saira: I got it (passing it to Fari)
After sometimes
Danial: give me ruler Farida (**she gave it to him**)
Saira: **copy mine Fari** (she gave her work to Fari) (Fixed ability group work 16/11/13 at 9:30-10:30)*

This tool was used to analyse how participants use language to convey points in socially recognizable activities (Gee, 2011) which helped me to explore the nature of their interactions with their peers. For example, the pupils in this group used language to seek and give help to their peers. The nature of the discourse showed that participants cooperated with each other by fulfilling each other's needs generally and academically. They showed positivity and cooperative interactions towards their peers. The example of pupils' discourses (see Chapter 6, p119) was also analysed by using the 'Big D' discourse to interpret the influence of classroom context on their perceptions about group work and their peers.

Figure 7: Example of using "Tools of Discourse Analysis" to analyse data

3.7 The ethical processes of the study

I conducted my research with young learners by participating in their private social and educational lives (Berg, 2007) as stated above (see Chapter 3, Section 3.3). Due to contextualization and situatedness being the main aspects of my field work (see Sections 3.4 and 3.6), I adopted a well-established code of ethical conduct (Kubanyiova, 2008, p.505), which allowed me to deal with the unpredictable situations that arose in the process of conducting the research (Guillemin and Gillam, 2004). According to Guillemin and Gillam (2004), ethics in qualitative research can be described in two distinctive forms - *procedural ethics* and *ethics in practice*. Procedural ethics are defined as the usual processes which are made mostly before starting the research. This may involve seeking approval from a relevant ethics committee to ensure the protection of rights of the research participants, and protecting them from obvious forms of abuse. Whereas ethics in practice cover every day ethical issues that can arise in the process of conducting research. In some cases, procedural ethics may not be sufficient to deal with ethically important areas, and therefore, researchers have to adopt the ethics in practice approach in qualitative participatory research (Guillemin and Gillam, 2004, p.262-263). In this section, I describe the processes of adopting procedural and in practice ethics in order to respect the welfare, trust and privacy of my research participants (Kubanyiova, 2008) while conducting my research, as follows:

Making participation voluntarily: The research involved long-term field work in a real classroom setting, which was not possible without having the voluntarily participation of the class teacher and pupils. I planned the data generation procedures in less obtrusive ways in order to ensure flexibility in my research design. This openness in the research design appeared to help with gaining and sustaining the voluntary participation of research participants in my study.

To respect the autonomy of my participants, I allowed my research participants to act and behave according to their own purpose rather than respecting my demands as a researcher (Kubanyiova, 2008). I planned my field work as a joint activity between myself as a researcher and the pupils and class teacher of the particular classroom as research participants. I attempted to present my research as a way to understand the factors influencing the nature of interaction among pupils and to identify effective conditions for the class teacher to organize group work. The use of unstructured research instruments and data generation processes appeared to strengthen the autonomy of my research participants. It appeared to empower participants to make decisions for their actions (Guillemin and Gillam, 2004) without acting upon my direction as a researcher in the overall research processes.

Informed consent to work in close settings: Consent is defined as a central act in ethics which is given freely without pressure, threat or persuasion (Alderson and Morrow, 2011). I contacted the school authorities, class teacher, pupils and their parents in order to obtain consent. I contacted the pupils' parents to confirm their agreement on behalf of their children who were under sixteen (Jason et al., 2001).

I handed out explicit information sheets about the purposes and processes of the research (Greig et al., 2007) to all my research participants. The processes of using participant observations and informal conversational interviews through which means the data will be recorded were explained clearly, with all research participants including the class teacher, pupils and their parents. They were given information sheets and consent forms (see Appendixes 02, 03 and 04) to indicate their willingness to participate in my research before starting my field work. The assent sheets (see Appendix 05), which were in easy and understandable language, were given to the pupils in order to develop their understanding of the research clearly.

However, signed consent forms as suggested by (Guillemin and Gillam, 2004) do not constitute informed consent, and sometimes may only serve as evidence that consent has been given by the participants. Therefore, the process of gaining consent was not entirely finished before the start of the data collection in the initial stages of the field work. It remained as a continuous process during the overall process of data collection. For example, the pupils and their class teacher were consulted every time before observing their actions and exploring their perspectives of group work as explained above (see Sections 3.4 and 3.5).

Protecting participants from harm/risk assessment: The study was not designed to engage research participants in any activity which could cause them harm. However, I mentioned the minor levels of potential risk (McKenzie and Usher, 1997) which might have caused disturbances in their daily lives (Jason et al., 2001). For instance, I negotiated the processes of conducting observations using a voice recorder, and taking pupils out of the classroom for informal interviews. In this respect, the flexibility of the research design and instruments (see Chapter 3, Sections 3.3 and 3.4) helped to keep any risk to a minimal level.

In terms of emotional disturbances, the pupils might have experienced nervousness during their interviews or felt anxious due to being observed at some points. I acted according to the will of all individuals involved in my research to limit them from experiencing any sort of emotional uneasiness. For instance, one of my participants allowed me to use voice recorder to record her interview in her consent form. However, she asked me not to record her interview at the time of participating in the actual interview. She shared that she was feeling a bit nervous, and therefore I put the voice recorder away to help her relax, and took notes of her responses as she had wished instead.

At some points, my relationships with the pupils (see Chapter 3, Section 3.5) seemed to help them to overcome any minor emotional disturbance, and made them remain relaxed and natural in their actions. For instance, some pupils were not included in the sample of my study to participate in informal conversational interviews, however, they expressed a desire to be interviewed in the second phase of the data collection, and therefore I interviewed them purely to please them by respecting their wishes and trying to stop them from feeling that they had made a mistake by not being interviewed in the first place. The permission for their participation in my research had already been obtained from them and their parents at the beginning of the field work, as mentioned earlier.

Ensuring participants' trust: McNiff (2013) states that researchers should present themselves as helpful people, who help their research participants to improve their practices. Building and maintaining trust while conducting research was a major ethical concern of mine due to being a participant observer. I worked in the classroom as a helper for the initial three-week period (see Chapter 3, Section 3.5.1) to develop an understanding with the class teacher and with her classroom. However, I had to work with them as an observer later on, and therefore, it was a foremost issue for me

to build trust with my participants including pupils, the support teacher and the class teacher. The pupils were familiar with me as I had already worked as a volunteer in their classroom a year or two before (see Chapter 3, Section 3.3.1). However, building trust with the class teacher was not easy.

The class teacher remained polite, and trusted me to observe her classroom, although this trust was shaken for a while when I started observing pupils in her classroom. At the beginning, she felt uneasy if I got close to pupils in their groups. Whenever I sat with the pupils in their groups to observe them, she also joined that particular group, and started explaining the lesson. It was a normal classroom practice that pupils need their teacher's help to complete the given task appropriately, however, it appeared to me to be unusual when she remained in that for the majority of the lesson, where she communicated and talked with each pupil in that group. I wanted to observe the pupils' interactions with their peers, but was not able to do so with the teacher's presence and interaction. For the majority of the time, the pupils worked independently with the extended presence of their teacher.

I found that this presence of teacher limited opportunities for pupils to interact with one another. I clearly communicated the purposes of my research with the class teacher before starting the project, but she perhaps misunderstood this and seemed to doubt my presence in her classroom. For instance, on one occasion I was observing pupils in their fixed (average) ability group when the class teacher came to the group and started a conversation with the pupil, as follows:

CT: quickly, guys (saying to Isma's group)

Huma: are you going to stay with us ...

CT: mmm well I am moving around

Isma: can we do two squares for 1 point?

CT: yes, you could do

Isma: 12 for six points

CT: yeah..... we will do next in symmetry shapes

Ahsan: are we doing only six?

CT: yes.....

Pupils started working in their notebooks quietly. After some time the class teacher announced: fantastic.... (Silence pause) everyone (Silence pause)right when we finish you should really have your graphs done now.... Put your pencils down. Well, few minutes as few of us are leftLabel your x axis and then label your y axis right..... what are

we doing now, we are moving to another activity? I will practice a few with you and then you will have a go on your own..... So this group I am working with you and then I will move to give a little hand to others too (*observation of pupils' group work recorded on 9/10/13*)

She pointed to the group that I was observing to indicate that she was still staying with us during the second round of the lesson, which I felt to be a bit unusual. As compared to the other lessons, she did not move around all three tables of the average ability group, and stayed with the particular group that I was observing. Similarly, I used to discuss with her about pupils or lessons during break time while working as a helper before observing her classroom formally as a researcher. However, she doubted me as an observer when I started my observation. She became less communicative in terms of sharing information about pupils' group work. Most of the time she asked me questions "sorry, I did not get it", "what do you mean?" (Informal discussion, Oct, 2013).

Removing such confusions and contradictions to maintain trustworthy relations with the class teacher was essential for me. To overcome these, I decided to share some of the information on the pupils' group skills with her. Afterwards, she did not seem to be as bothered by my presence in her classroom. However, this experience enabled me to re-situate (Taylor, 2015) the ethics of keeping observational data strictly confidential, as explained under the subsequent heading.

Ensuring the confidentiality of participants' comments and behaviours:

Protecting the privacy of research participants is a vital ethical concern, and children have the same rights to confidentiality as adults (Alderson and Morrow, 2011). All the data collected from the field was saved on the M drive by using Desktop Anywhere connectivity. I transcribed the audio recordings myself. The transcripts remained confidential between myself as a researcher and my project supervisors. These transcriptions were shared with the supervisors by using the official mailing address which is secured by the university's IT services. The data was not discussed outside with a third party, except in a few seminars and conferences, for which participants had authorised their permission in their consent forms (see Appendices 02, 03 and 04). I anonymised the name of the school, as well as those of the class teacher and pupils in order to maintain my promise, using pseudonyms to make my research participants less identifiable.

The emphasis on maintaining participants' confidentiality is given huge priority in discussions about procedural ethics. However, procedural ethics sometimes prove inadequate and limit the researcher's capacity to ethically breach the promises of keeping the data strictly confidential while facing unforeseen circumstances (Guillemin and Gillam, 2004) in qualitative participatory research. Compared to procedural ethics, ethics in practice are context specific (Neale, 2013, p. 08). Ethics in practice ensure that research practice aligns with the real lives of the research participants, but at the same time does not move away from broader ethical principles (Neale, 2013). By adopting ethics in practice, researchers sensitively appraise local circumstances and remain flexible in resolving ethical questions, rather than relying on general rules while conducting participatory field work. The use of ethics in practice allowed me to resolve some of the tensions that arose regarding keeping the observational data strictly confidential during my field work. For instance, while negotiating access with the particular school I did not anticipate that I would be working with a different and newly recruited class teacher. Therefore, I did not expect to have to share some details of the pupils' interactions with their class teacher at various points during my field work.

The pupils and their parents appeared to fully trust the class teacher, as depicted from their informal verbal conversations before the field work commenced. Before signing consent forms on behalf of their children, some of the parents approached the class teacher to further explore the research project. They were reassured that their children would participate in this research under the supervision of their class teacher. After the head teacher, the class teacher served as the gate keeper to interact with pupils to observe their group work in the particular classroom. At the beginning of the field work, as stated above, the class teacher expressed anxiety about my presence as a researcher in her classroom. This situation led me to share the observational data verbally with the class teacher during our informal conversations. Once she knew that the content of my observations was mainly about pupils' interactions and their conversations during group work, the class teacher appeared to trust me more, and felt comfortable with my presence in her classroom. However, I realised that I had not asked pupils and their parents for explicit consent to share observational data with the class teacher, and I could have elaborated my information sheet and consent form to obtain explicit permission to do so. I attempted to make up for this gap through verbal conversations with pupils and their parents to protect their rights of confidentiality

while observing the particular classroom. These informal conversations can be referred to as *moral conversation or ethical talk* (Miller and Bell, 2002), through which researchers can obtain verbal consent from the research participants and their gate keepers at key intervals over the course of social inquiry. I obtained permission from the pupils and their parents to share observational data with the class teacher at various points during my field work. I did not disclose pupils' names or other details when talking to the class teacher, in order to respect the confidentiality of their actions which I observed during their group work.

Similarly, I gained consent from pupils' parents and the class teacher for recording pupils' conversations covertly at various points to make them act naturally in their actions (see Appendix 04). This action was taken to maintain classroom discipline and to respect teaching routines. The class teacher was aware that I had placed a voice recorder on her table in working mode to record a particular group of pupils. However, the pupils themselves were not aware that on a few occasions I had recorded their group discussions covertly with the voice recorder.

In the information sheets I promised that the names of all research participants would be anonymised. However, it appeared that many of the pupils were unhappy that I was not using their real names. One of their major concerns was that if they wanted to read my thesis at some point in their lives they would not be able to recognise their contributions. To avoid this disappointment, I ensured them that I would select pseudonyms using the initials from their real names, and therefore they would be able to recognise their contribution from the initials of their pseudonyms which would be similar to their real names.

Reporting research findings to research participants: I attempted to empower my research participants (pupils and class teacher), particularly the class teacher, to increase their awareness of the process of conducting research to improve classroom practice (see Section 3.5). She participated as a co-researcher during the process of data collection to implement the proposed activities to understand the nature of pupils' interactions during their routinely organized group work. Therefore, I organized various formal and informal meetings with her to share my overall research results. In doing so, I provided general information comprised of a list of the major themes derived from the initial analysis of the data (see Appendix 01). My basic rationale behind sharing these initial findings was to gain her perspective to plan appropriate interventions for her classroom, as previously explained (see Section 3.5.3). I could

not involve the pupils as member checkers due to limited time and lack of adopting appropriate methods to present my findings in easily understandable language, although I used to involve several informal discussions with pupils to share some of the possible outcomes of my research, which may help them to make the most of social interaction during their group work.

3.8 Summary of the chapter

This chapter has addressed the methodological features of my study. I have explained the research approach, design, rationale behind the selection of the particular research setting, and sampling techniques to recruit participants for my study. I have described the research instruments of participant observation and informal conversational interviews that I used in the field to gather data relevant to the focus of my study. I have also described the phases of data collection to explain the procedures, which I covered while collecting data from the research field. I have reflected upon the analytical techniques of thematic and discourse analysis, which I used to analyse data to explore the answers for my research questions. At the end of the chapter, I have recounted the ethical processes, which were adopted before starting, during and after the field work of the study.

CHAPTER 4: DESCRIPTION OF THE CASE (RESEARCHED CLASSROOM)

4.1 Introduction

This chapter explains the physical and educational settings of the pupils. The description may help readers to understand (Emerson et al., 2011) the characteristics of the observed classroom, which appeared to influence the nature of pupils' interactions and perceptions of group work, as explained in the upcoming chapters (see Chapters 5 and 6). I used my field notes taken during the field work to describe the school, classroom context and various teaching and learning activities organized in it. The description on the classroom context is explained in the following ways:

Section 4.2 outlines the formal and informal learning activities organized in the school for the academic and social development of pupils.

Section 4.3 explains the physical settings of the classroom in which the participants of this research were observed.

Section 4.4 mentions the formal teaching practices organized in the particular classroom.

Section 4.5 describes the class teacher's perspectives on organising particular forms of group work in the observed classroom.

4.2 School as an academic and social context

The school is an average-sized mainstream primary state school for children aged from 3 to 11. It is run by the Local Educational Authority (LEA) and is a part of a partnership trust with four other local schools. The majority of pupils in this school belong to various minority ethnic backgrounds. The school is a good example of cultural diversity, in which most pupils speak English as their second language, and thereby start school at an early stage of speaking English or with no English at all. Most of the pupils in the school are eligible for free school meals (School webpage⁵, 2013). The school is very active in organising social events to promote respect for different cultures of the world. It encourages all pupils to learn inclusively by organising several aspects of provisions, for instance, school action plus, and SEN

⁵ The name and address of webpage are deliberately anonymised for ethical reasons.

(special educational needs). It also organizes English language intervention schemes to support pupils speaking English as an additional language.

Academically, the school supports all pupils according to their distinctive academic target as part of the differentiation (see Chapter 2, Section 2.6.1.1). Pupils are given exciting activities both inside and outside of the classroom in order to learn and to develop their cognition. The academically more able pupils are given challenging tasks with higher complexity levels to polish their abilities. The school provides additional support to pupils with low attainment levels and low achievement rates, and has an action plus plan to support pupils with low academic achievements outside of the classroom. These guided sessions are taught by support teachers. They meet with pupils on a weekly basis to enable them to practice various activities in order to improve their learning and academic developments. The learning mentor works closely with the class teacher to plan the learning activities and to link their additional help with the normal classroom's instructional plans. The head teacher guides nearly all class teachers to plan their lessons in the best and suitable ways to increase the academic standards of the school. The teachers were given useful resources and materials to strengthen their teaching practices and to enhance pupils' participation during lessons.

Pupils who have English as an additional language were supported through reading comprehension interventions. The school library has a few story books translated into Urdu, Arabic and Hindi, and there are bilingual dictionaries available in the resource room of the school, which pupils are allowed to use during their lessons. The school has achieved various awards, such as an Active Mark from the Inclusion Quality Mark for being a good example of inclusion. The school was appreciated for its extraordinary efforts to help pupils with learning difficulties, academically talented and weak pupils, native English speakers and those with English as an additional language.

Pupils with learning difficulties are looked after by well-trained support teachers, who assist their learning processes by teaching them different skills. The school works closely with SEN⁶ programme managers, governors and parents to ensure safe learning environments for children with learning difficulties and physical disabilities.

⁶ SEN = Special Educational Needs

The school organizes several activities to enhance the social, spiritual and cultural development of children. During my field work, I noticed three words (knowledge, skills and attitudes) written on each board in the school displayed in the classroom and in the corridors. I asked the head teacher about these words during one of my informal conversation with her, and she explained that these three words (KSA) were selected to remind pupils of the different types of knowledge, skills and attitude that they could gain while learning any activity. Her rationale seemed to highlight the importance of the cognitive, as well as the social learning of pupils, which appeared to be recognised by the particular school.

The school plans PSHE (Physical, Social, and Health Education) lessons to strengthen pupils' understanding of personal, social and community development occasionally. It celebrated one week as Aspirational Week to gain familiarity with the different kinds of occupations that pupils can join after completing their education. The basic purpose for celebrating Aspirational Week is to inspire pupils to gain an education and to develop into useful citizens of their society. The head teacher invited guests from different communities and cultures to promote mutual and cultural respect among the pupils.

The school encouraged outdoor play among pupils through innovative, inspiring and team based activities, for example, Forest School Camp which is attended by pupils from Reception, Years 1, 3 and 5. The pupils visit woodland located a mile away from the school for an afternoon for six weeks of every year. They participate in various problem-solving activities such as building dens, making fires and working with dried leaves. Pupils are encouraged to work in groups, mostly to perform the activities as shown in the pictures below:



Figure 8: Pupils working in groups outside the classroom

In school, pupils are given opportunities to practice their sports skills in group or team based activities during PE lessons. They take part in gymnastics, football, basketball, volleyball and various other activities.

I noticed in my field work (Sep, 2013, July, 2014) that generally the pupils respected their teachers and visitors in the school. They listened to their class teachers and followed the school administration. However, some pupils occasionally exhibited behavioural problems, which hindered the class teacher when organising interactive teaching sessions in the classroom (interview, 17/12/14). As a result, she prioritised traditional whole class teaching over group work to maintain good discipline.

The school organized a FAB (Friends and Buddies) assembly once in a half term as part of promoting good manners and cooperative behaviour among pupils. Pupils from across the school were divided into four large groups for FAB⁷ assemblies. The groups were called FAB groups and were given different names, such as Hawks, Eagles, and Falcons. Each group was allocated a colour, such as blue, yellow, red or green. The pupils belonging to particular FAB groups were encouraged to earn stickers for showing good performance and positive behaviour in their classrooms. Before giving them a sticker, pupils were asked to talk about their FAB group's colour. They were given yellow, red, blue and green stickers matched with their specific group's colours.

In the FAB assemblies, members of all FAB groups were encouraged to wear T shirts matching their groups' colour. Each group was led by a staff member who collected stickers from their group's members. The winning group with the most stickers was rewarded by the head teacher. After the assembly, all FAB groups participated in group-based discussions. Their discussions mainly focused on various ways to promote positive behaviours in the classroom. Sometimes, discussions were organized on cooperative learning and team work in which pupils were encouraged to talk about their experiences of working together in teams or in groups. Once, pupils were asked to design posters about getting on and working together in teams as shown in the figure below:

⁷ FAB= Friends and Buddies



Figure 9: Pupils' work on "Getting on Well and Working Together" (29th November, 2013)

Pupils were encouraged to work in groups with their classmates and other pupils of the school through the FAB activities. Initially, I did not plan to attend the FAB assemblies as they were not directly linked with the topic of my research, however, after discovering that pupils participated in groups, I decided to observe the FAB activities in order to explore their interactions with others outside of the classroom. Another option to observe pupils' group behaviour outside of the classroom was at PE lessons, where I was able to analyse the nature their interaction with other peers, and therefore I planned to observe pupils in their PE lessons. I took field notes of pupils' interactions in team-based games in order to explore how pupils behave with one another when they are not divided and grouped in terms of their assessed academic abilities, as described in the subsequent section (see Chapter 4, Section 4.3).

The school also organizes a behavioural management activity, *Good to be Green*, to control bad and unacceptable behaviour among pupils. Pupils are provided with behavioural management cards known as *Good to be Green* cards, to record their good and bad behaviours both inside and outside of the classroom. Good behaviour is marked with a smiley face whereas bad behaviour is marked with a sad face. Every Friday afternoon the class teacher awards pupils with a stamp after counting their

smiley faces. Pupils with four or three stamps are given the opportunity to shop from the school tuck shop as a form of reward. Pupils without enough stamps are enrolled in behavioural management training sessions organized by support staff during playtime. The behavioural management activity is based on individualistic performance. It does not involve pupils in group work, but seems to encourage them to consider and improve their individual behaviour only to get a reward.

4.3 Physical structure in 5GH

This section explains the physical layout of the classroom and the seating organisation of the classroom in which pupils work in different groups during their lessons. In the particular school where this research was held, each classroom is given a specific name such as RN, RH, BS, and BA. The classroom I worked in is known as “5GH”, with a class of 26 children in Year 5. There were 12 girls and 14 boys. The whole class was set out in five different ability groups as shown in the pictures below:



Figure 10: Seating arrangement in 5GH

Pupils were allocated different ability groups based on their assessed academic levels for core subjects, including numeracy and literacy by their class teacher. These ability-based groups were formed according to the recommendation of the statutory programme (see Chapter 2, Section 2.6.1.1) in order to implement differentiated teaching according to the different ability and academic levels of the pupils.

The fixed ability groups were given a specific colour to distinguish each ability group from one another, as shown in the picture below:

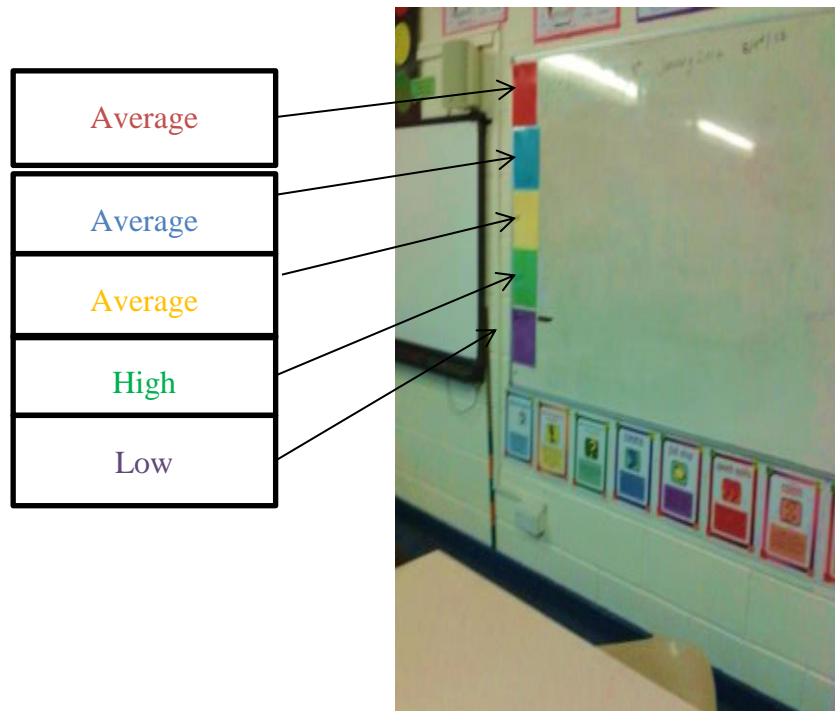


Figure 11: Five different colours for five different ability groups

Pupils with similar academic ability and levels sat on one table specified with a colour and known as the blue table, red table or yellow table. Red, blue and yellow represented average ability groups. Green was used for the high ability group and purple for low ability. The pupils were grouped in mixed ability groups for other subjects including Science, topic and ICT.

4.4 The lesson's structure in 5GH

This section describes the weekly planned teaching practices of the classroom. Mainly, I used my field notes to describe the lesson structure, but I also quoted observational and interview data in some places to describe pupils' interactions in their lessons.

	09:05 - 09:25	09:30 - 10:40	10:40 - 10:55	10:55 - 12:00	12:00 - 13:00	13:00 - 14:15	14:15 - 15:10
Monday	Assembly	Numeracy	Break	Literacy	Lunch	Tie dying	ICT
Tuesday	Guided Reading	Numeracy	Break	Literacy	Lunch	PE - Basket ball	Topic
Wednesday	Assembly	Numeracy	Break	Literacy	Lunch	Science	PE - Gymnasitics
Thursday	Singing	Mental maths	Break	Grammar for Writing	Lunch	RE/PSCHE/P4C	
Friday	Assembly	Maths paper	Break	Maths paper	Lunch	Guided reading	Art

Figure 12: Weekly lesson plan of the observed classroom

Pupils arrived in the classroom from 8:45 am (BST⁸). Usually, the class teacher planned a few warm-up activities for the morning sessions. She organized reading comprehension cards and mathematical problem solving activities. The teacher would sometimes ask the pupils to finish their topic work. On Mondays and Wednesdays, pupils attended assembly in the main hall, after registration.

At 9:30 am (BST) the class teacher announced, “Numeracy places please”. All pupils were aware of their numeracy places assigned to them on different tables according to their achievement levels. At the start of each numeracy lesson, pupils were usually involved in some recap activities. The class teacher would sometimes ask general questions as a warm up activity to introduce the lesson. Afterwards, the main teaching started and pupils were asked to continue their work either independently or in groups. In terms of working in groups, the teacher gave different tasks to each ability group as part of differentiation. She mainly guided pupils with average attainment levels.

⁸ BST= British standard time

Pupils with low attainment levels were assisted by the support teacher. Pupils in high ability groups were normally involved in independent work.

After finishing their Numeracy lesson, pupils had a short break during which they played outside in the playground for 20 minutes. They were accompanied by a few staff members assigned by the head teacher to look after their playtime activities. After the break, most of the pupils gathered around the water tap to drink water. However, I noticed that they sometimes gathered around the water tap not to drink water only, but to also discuss the games that they had been playing outside. Therefore, every so often they were reminded by their class teacher to come back to their Literacy places.

In Literacy hour, the pupils read a book suggested by their class teacher. At the time of the fieldwork in November 2013, they were reading “Friends and Foe” written by Adam, D. Galinsky and Maurice, E. Schweitzer. The class teacher initiated reading and then chose different pupils from different groups to carry on the reading. When a pupil finished, the remainder of the pupils in the class would often raise their hands, and loudly say, “me, me, and me”. The voices continued until the teacher picked someone to read. Most of the time the pupils concentrated and listened to their peers, however, a few of them often got lost in the text and struggled to find the relevant page. Occasionally, I heard some pupils whispering to their group mates, questions such as “where .what [is] page number” (Field notes: September, 2013).

The book reading lasted for 20 minutes after which the class teacher started the main lesson. The pupils learned various topics including *how to write a poem* and *how to write the biography of a famous musician (John Lennon)* at the time of field work. The class teacher explained the activity first and then moved pupils towards their individual writing. Sometimes, pupils were given well-written examples of poems and biographies to help them with their work. They were asked to discuss the given example in pairs or in groups, and then plan for their own writings as shared by the class teacher:

“Especially in literacy Each of them [is] doing a full piece [of writing]. I will prefer to separate out so that child [doing]this bit and that child write another bit ... so that means they are all bringing in together and they are going to have a talk to each other if they struggle with that” (Interview with class teacher 17/12/13 at 3:30)

Pupils were put in groups or pairs in order to have discussions with their peers before working on their individual tasks. Usually, they made noise and did not work well in their small groups or pairs. For instance, in one literacy lesson the pupils in one average ability group were stopped from working in groups/pairs:

“You know that everyone on that table, do not speak to each other, just don’t speak, you can work in silence until you can learn to say nice things” (Literacy lesson, 3/12/13 at 11:00-12:00)

Lunch break was at 12 noon. I always found the dinner lady waiting outside the classroom to lead pupils to the dinner hall. During my field work, I used to stay in the classroom for a while during lunch time, and used that time to discuss my observational plans or notes with the class teacher to explore her perspectives, which helped me to understand my data (see Chapter 7, Section 7.4.2).

After the break, pupils were taught different lessons throughout the week including topic, Science, PE (Physical Education), RE (Religious Education), guided reading and Art. Primarily, they worked in mixed ability groups during the afternoon teaching sessions. I observed a few Science lessons in which pupils were engaged in various group-based activities (i.e., weighing different objects, guessing and writing different measurements, and categorising solids, liquids and gasses) as shown in the pictures below:



Figure 13: Pupils working in groups in a Science lesson

In PE (Physical Education), the pupils usually went outside into the playground, or to the main hall, to take part in physical games, such as rugby, football and basketball. For the most part the class teacher planned these activities, but pupils were sometimes asked to choose games of their own choice. It was amusing to notice the typical gender division among pupils. Boys wanted to play energetic games, whereas girls wanted to play simpler games such as drive skipping, tig-tig, and simply running.

Normally, the class teacher divided the pupils into two large groups to play different matches. Each team comprised of both girls and boys. The matches were played as quarter-final, semi-final and final gradually between both teams every week. Pupils often talked about these matches in the classroom. Some of the boys would often persuade their friends to be part of their team, or they would sometimes form a gang against any particular boy to kick him out of the team. For instance, in one PE lesson a group of boys were not happy to have Ahsan in their team during a volleyball match, and therefore they did not let him to play in their team, as described here:

Amaad, Danial, Babar and Ahsan were playing together as a team. Babar was playing as a referee. When the match started, Babar was giving instructions to his team members:

B: Dan (Denial's nickname). Pass it [ball] to Amaad....
Amaad bounce it ... go [twice] Amaad.... Throw it now
....move Ahsan move, let Amaad hold it ... come on ...
Amaad bounce it [ball]don't throw yet.... No no (Field notes
in PE lesson, 10/12/13 at 1:30-2:15)

Babar did not allow Ahsan to catch or play. He was stopped every time and was instructed to pass the ball to another team member by the referee.

For ICT, pupils used a computer lab adjacent to their classroom. They mostly worked in pairs to learn about MS Word and PowerPoint. If someone finished their work early they were allowed to play games on the computer. Each pupil was given their own username and password. I noticed the sharing of passwords among friends, which was a common practice among pupils. They were also allowed to use a secured mailing address which was supervised by the school authorities, in order to send emails to their fellow classmates and teachers. Sometimes pupils became louder during their group based work on ICT projects. The class teacher reminded them of classroom discipline repeatedly, and would walk from one pair to another throughout the lesson in order to ensure that pupils did not engage in any irrelevant work.

In guided reading, pupils worked in mixed ability groups. Each group had a separate reading folder containing books, reading journals and worksheets for all group members. The groups were given numerous tasks in the form of reading and comprehension exercises. They were asked to finish their readings and to solve the tasks from their individual worksheets. Some groups were assisted by the class and support teachers.

Friday afternoon was allocated for Artwork. Pupils used different colours and materials to design several items relevant to the theme of the term. They worked on three themes including the Second World War, Peace and Aboriginal Art during the period of data collection. The pupils were given all the necessary art materials to work on their art's activities. They were allowed to talk and to sit with their friends or any other pupil that they wanted to sit with. The teacher would sometimes play music according to the level of pupils' behaviours. Parents started to gather outside the classroom to collect their children at the end of the day. After their departure, the class and support teachers would stay in the classroom to plan their lessons for the next week.

4.5 The rationale of the class teacher to organize group work in 5GH

This section uses data from interviews and informal discussions to describe the class teacher's rationale for organising the above described grouping structures in the classroom. The groups are organized to meet the demands of ability-based differentiation as discussed above. According to the class teacher:

I will group them in terms of ability and level first. In the morning it's fixed based on abilities for Maths and Literacy and in afternoon it's mixed in terms of abilities (interview with class teacher: 17/12/13 at 3:30)

She formed ability-based groups in Literacy and Numeracy lessons and organized mixed ability group work in the afternoon. She also acknowledged that she could apply any structure in her classroom – “I can group however I see fit” (class teacher during the interview).

She prioritised pupils' learning to group them but mentioned only two (either fixed or mixed) types of ability groups that she organized in her classroom. As shown in the above mentioned figure (see Chapter 4, Section 4.3), the average ability group was split into three small groups (tables). The class teacher, while justifying the reason behind this sub-division, shared that:

I tried to group them in terms of need and what their next steps are ... they are all 3a but 3a can be completely different you know. (Interview with class teacher: 17/12/13 at 3:30)

She categorised pupils with average academic levels into three different sub-groups depending on their unique academic needs and requirements. She mentioned one sub-group of pupils with average learning levels to explain it further:

These boys (yellow table) [pause] they all have the same kind of needs in terms of literacy and that was [has been] highlighted in the pupil' progress meeting. So that... this is my focus group and next how many weeks in term are there to improve. (Interview with class teacher: 17/12/13 at 3:30)

She pointed to one average ability group of pupils having same (3A) academic level in Literacy. She mentioned about pupils' similar academic performances for grouping together, and also referenced one of her training meetings in which she received guidance to level pupils' work. She explained the processes of keeping records of pupils' performance to match with their learning targets. She mentioned one of her pupils from the average attaining level:

[Like] the structure of sentences with [name of pupil]. He is improving loads he doesn't need to be on there [pointing to yellow table] he is nearly on there [pointing to green table] he is just he just hurried away and forgets to punctuate and blanks they are kind of abilities but there are subcategories almost into each target. (Interview with class teacher: 17/12/13 at 3:30)

She mentioned the writing competencies of one of her pupils from the average ability group, and expressed her desire to upgrade him to the high ability group. However, she placed him in an average ability group due to his poor punctuation. Likewise, there were some other pupils whose academic needs were similar, and she therefore separated them into three different average ability groups.

In terms of enabling pupils to interact with their peers, the class teacher allowed pupils to work in groups during the introductory part of the lesson, as she shared:

I implement like a small section of the lesson we do in groups which is probably I do the most during kind of ten minutes put them in groups.

She encouraged pupils to initiate task-related talk with their peers during the first 10 minutes of their lesson while explaining the introduction. She also mentioned pair work as a commonly used activity to organize peer interaction, as she said:

I mean most of the time especially in math... you know... they supposed to be working in pair hahaha [laughing] most activity which I do.... I tried to keep it paired work just because they are quite a loud class and if you want them work [as] whole table sometimes. They talk louder to get across the table. (Interview with class teacher: 17/12/13 at 3:30)

The class teacher used pair work as a common practice to enable pupils to interact with their peers. She was concerned with the pupils being loud when grouping them into big groups, and therefore used pair work to maintain classroom discipline. In terms of organising group work, she occasionally prioritised the nature of the learning task, as she explained:

Sometimes it's a kind of not fitting in. sometimes you want them to learn individually and sometimes collaborative learning is difficult for example in terms of learning how to divide long division you can do that in groups but it is something individuals might get it better. (Interview 7/7/14 at 3:30)

Sometimes the class teacher preferred to teach some topics (for instance, she referenced Mathematics) by using individual teaching methods. She did not prefer to organize group work in Mathematics as she perceived that pupils could learn it better through individual learning.

The above interview extracts explain the class teacher's rationale for organising various forms of group work. The class teacher organized ability-based group work mainly to cater for the differentiated learning needs of her pupils. She also mentioned that disciplinary problems led her to organising group work for a short time, or to limit it with pair work only. She mentioned the nature of the lesson and learning activities which determined her decisions for organising group or individual work.

4.6 Summary of the chapter

In this chapter, I have summarised the characteristics of the school (research context) in which pupils participated in various individual and group-based activities to enhance their academic, social, and cultural developments. I have described the physical and instructional structure of the particular classroom in which the

participants of my study worked. I have also explained the class teacher's perspectives about planning and organising individual and group-based teaching activities, which have remained influential on the nature of pupils' interactions and perceptions of group work, as explained in the upcoming chapters.

CHAPTER 5: GROUP WORK IN CLASS 5 GH: THE NATURE OF PUPILS' INTERACTIONS DURING GROUP WORK

5.1 Introduction

In this chapter, the answers for the first main question of the study, and its sub-research question, are answered, which include the following:

1. What is the nature of pupils' interactions during their routinely organized group work under ability based and other group structures in a primary classroom?

- 1.1 Does the nature of social interaction among pupils change and transformed from one grouping structure to another, and if so why?

Here the nature of pupils' interactions recorded in their routinely organized group work in the particular classroom is explained, using examples of pupils' group work, both inside and outside the classroom, in order to answer the above mentioned questions. Inside the classroom, pupils were mainly grouped in ability (fixed and mixed) based groups (see Chapter 4, Section 4.3). Outside of the classroom, pupils were involved in group or pair work, mainly in PE lessons.

As stated previously (see Chapter 3, Section 3.4.1), I have attempted to observe pupils' interactions holistically during their routinely organized group work. Therefore, I did not intend to only emphasize upon the frequency of the particular aspects of pupils' interactions to explain its nature, but attempted to give equal significance to nearly all of the distinctive aspects of pupils' interactions. While explaining the evidences related to pupils' interactions, I chose examples as they were observed most frequently during both the first and second phases of data collection (see Chapter 3, Section 3.5). Some of them (for example, encouraging attitudes) were noted as unusual, but appear to provide rich detail to understand the nature of pupils' interactions.

The examples of pupils' interactions were coded and labelled (see Chapter 3, Section 3.6) into four main categories - *talking among peers*, *cooperative interactions among peers*, *uncooperative interactions among peers* and *gender division among peers*, as explained in the subsections of this chapter. In each section, I attempt to operationalise the particular category according to the nature of pupils' interactions recorded during the field work, such as:

Section 5.2 explains the nature of pupils' discussion that I observed during their routinely organized group work. The first subsection considers the data from on-task talking among pupils, while the second explores off-task talking among pupils

Section 5.3 explains the nature of cooperative interaction among pupils recorded during their routinely organized group work. The first subsection defines and focuses on pupils' helpful attitudes, and the second on their encouraging attitudes during their indoor and outdoor group work.

Section 5.4 explains the nature of non-cooperative interactions among pupils observed during their routinely organized group work. I define the different aspects of pupils' non-cooperative interactions (i.e. competition and mistrust), and explain the evidence in separate sections in order to explore competition and mistrust among pupils during classroom based and overall team work respectively.

Section 5.5 mentions the nature of gender-biased interactions among pupils. In the subsections, I explain the evidence related to the different aspects of gender biased pupil interaction during their indoor and outdoor group work.

5.2 Talking among peers

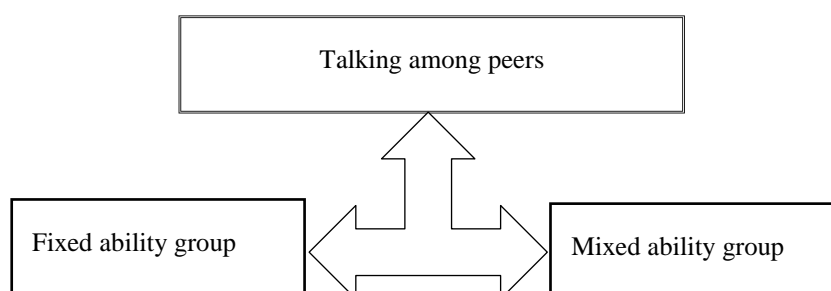


Figure 14: Talk among peers during their group work

The observational data shows that pupils were engaged in talk during their routinely organized group work of all types. Altogether there were 12 evidences from 11 observational sessions in which pupils talked to explain the title and discuss the task. I noticed that pupils communicated with one another while working together in both fixed and mixed ability groups. I have labelled pupils' talk as "on-task and off-task" according to the nature of the conversations recorded in their small groups. The pupils' talking was analysed and I focused on what had been said in order to identify its relevancy or non-relevancy with the given task (Suzuki et al., 2008). The interactional data shows that the pupils seemed to engage in both task or goal oriented

talk (Thornborrow, 2003), and talked about friendship problems and other activities that were unrelated to the given task. The nature of the pupils' talk varied depending on the group structure and groups' members in both fixed and mixed routinely organized ability based groups, such as:

5.2.1 On-task talk

Pupils' on-task talk was about explaining the task's title, sharing information and communicating the processes of activity to their peers in both the fixed and mixed ability groups. I provide evidence to explain the distinctive nature of pupils' on task talk during their routinely organized group work in the following separate sub-sections:

5.2.1.1 On-task talk in fixed ability groups

The observation of pupils' ability groups showed that pupils participated in task-related talk in all three fixed ability groups. Pupils in high and average ability groups appeared to help one another by talking about the task. However, pupils from the low ability group would often only talk in certain ways, due to being controlled by the support teacher. In this section, I provide empirical examples of pupils' group work in fixed ability groups to elicit the occurrence of task-related talk among pupils while working as a group.

In one example, pupils were involved in pair work in a literacy lesson. They were asked to collect and organize information on the life history of a famous English musician (John Lennon) and to write a subsequent biography about him. The conversation took place soon after the class teacher announced the activity. The pair seemed to initiate task-related talk to clarify the title, such as:

Rafique: I didn't understand (pause) What Miss said?

Suleiman: we need (pause) write more questions about John

Lennon As we did last week

Rafique: look at mine (showing the previous work)

Suleiman: yes..... lots of question how many pages

Rafique: counting (1, 2, 3) mine third one (*Pupils' interaction*

in fixed ability group work recorded in the first phase on 25

11-13 at 9:30-10:40)

In the above extract, pupils talked about the given task. The participants appeared to react in a friendly and explanatory way to guide each other. Rafique's utterances "I

didn't understand" indicated that he needed further explanation to make sense of the task. His partner (Suleiman) explained the title to him. Suleiman's words, "as we did last week", seemed to reference their relationship of being paired to work together on the same task in the past. Soon after this explanation, Rafique showed his questions written on several pages to reassure Suleiman that he understood.

In another example, pupils solved the given mathematical sum through discussion. Pupils were engaged in pair work in a numeracy lesson. This group was working on harder sums compared to the rest of the class, due to being regarded as a high ability group by the class teachers, as she said: "*1264 divided by 16. That one [is] really hard for green table*". The analysis of pupils' interactions showed that the particular pair used talk to negotiate and find a shared solution of the given activity, such as:

Suleiman: it's one thousand [pause] two hundred [pause] sixty four divided by sixteen

Rafique: Try 16 times 5 (They started calculating it on their whiteboards)

Suleiman: 80 (Looking on his board)..... I think

SilentLet's try 7

Rafique: ok..... (again they started calculation)

Rafique: yes you are right... it's nearly there look! (Showing his calculation to Suleiman)

Suleiman (who was already done with his calculation too): its 112?

Rafique: okay, minus it and now we got... (***Pupils' interaction in high ability group work recorded in the first phase on 08-10-13 at 10:10-10:40***)

The pair discussed the task by loudly repeating the number values in the division sum. For instance, "one thousand, two hundred and sixty-four", perhaps to highlight that they were given a really long number to divide. They seemed to suggest multiple dividers to find the correct answer including 16×5 , 16×7 through talking. Both participants suggested various alternatives to find the nearest value. They used words to express their understanding about the task. They used words to split 1264 into two halves 126 and 4, and then uttered numbers "16.5, and 112". This high ability pair appeared to coordinate their task related discussion by acknowledging each other, such as, "yes you are right", and suggesting further processes such as "minus it now".

They encouraged each other with phrases such as “nearly there”, and contributed equally throughout the discussion. Sharing equal high numeracy attainment targets may be one reason behind their equal participation, which seemed to enrich and facilitate their understanding. They appeared to discuss and compare different ideas collaboratively with each other.

The pupils in low ability groups also attempted to involve task related talk. However, observation showed that pupils’ talk in the low ability group was sometimes controlled by the support teacher. I provide an example here in which pupils appeared to use talking to interact with their low ability peers in numeracy. The group was working under the guidance of a support teacher, who instructed and explained the activity to the pupils. The pupils were told to measure different shapes and their angles with the protractor. They were also instructed to write the observed measurements in their numeracy notebooks. The example showed that the pupils initiated talk to discuss the WALT (‘we are learning to’) during their group work. However, they were stopped from talking to begin their individual writing, an example of which follows below:

Saira: September, October and...

Danial interrupted: November this is November

Saira: Be quiet I know its November

Danial: Its Thursday today

Sara: I know (silence pause) What is it (silence pause)Thursday?

Farkhanda: no

Saira: Its three days to go man

Sir (support teacher): Guys back to work please have you written the date?

Saira: silent (nodded her head) (*Pupils’ interaction in fixed ability group work recorded in the first phase on 11/11/13 at 9:35 to 10:30*)

The pupils initiated discussion on the months and date to write their WALT. One of the girls, Saira, tried to guess the month to complete her date when Danial (her peer) initiated talk. Saira did not seem to like her peer’s interference and refused to listen to him, saying: “I know”. However, she continued her discussion with other peers later on. Both girls participated in discussion to talk about the days of week. The discussion

among peers in the low ability group was stopped by the support teacher, who appeared to consider it irrelevant to the given task. The interference appeared to limit pupils' discussion and hinder their interaction with others in the group. The pupils were reminded to concentrate on the individual writing of mathematical sums in their notebooks, rather than talking about WALT. The support teacher seemed to expect from the particular group to finish their work before the break, rather than prolong their discussion on aspects of their individual writing.

5.2.1.2 On-task talk in mixed ability groups

The observation showed that pupils were involved in explaining or discussing the activity with their peers in their mixed-ability groups as well. Nevertheless, I noticed that sometimes the pupils from the average and low ability groups did not seem to gain enough benefits from the task-related discussions in the mixed ability groups. In this scenario, the class teacher appeared to play an important role in encouraging pupils' talk to be productive for all of the group's members in the heterogeneous groups, as explained here:

In one example of mixed ability group work, pupils (two from the high and three from the average ability groups) shared a literacy task. The pupils were expected to think about and write their perspectives on whether "fighting for countries and killing people is right or not", as part of their topic theme of the "Second World War". All groups were guided by the class teacher who walked around the different groups to provide guidance to their discussions. The pupils used task-related talk, but some members did not seem to understand their peers' perspectives, such as:

Numen: What [are] we doing?

Class teacher: We need to think about

Sumaira interrupted: Numen we are doing write your points and say for example

Class teacher: Yeah and [also] give me reasons why? Why is it and then find some other reasons (*Pupils' interaction in mixed ability group work recorded in the first phase on 12/11/13 at 11:30-12:00*)

In this group, pupils with mixed levels were involved in task-related conversation with one another. Sumaira attempted to provide a straight forward reply to Numen's question. She uttered, "write your points and say for example", and got back to her

work. Numen was from the average ability group and perhaps simply required further explanation. By understanding the deficit of Sumaira's explanation, the class teacher intervened in the pupils' discussion. She tried to enable Numen to understand the title fully by explaining, "Also give me reasons why". The class teacher acted as a "mediator" (Webb et al., 2009) in the pair's collaboration to make it efficient and relevant for the pupil with average academic levels. The guided response given by the girl did not appear understandable for the boy from the average ability group. She used task-related talk to help her peer, but her "non-elaborated help" (Webb and Mastergeorge, 2003, p.417) was limited to the explanation of the title only. In such a scene, the intervention of the class teacher appeared to help pupils to understand the explanations of their peers in mixed ability groups.

In another example of mixed ability pair work, the pupils from the low and the average ability groups worked together to weigh different objects on the scale. They were expected to guess the weight of any object before measuring and quantifying its weight in newtons while using a force meter. They were also required to present their guesses (hypothesis) and actual measurements in the form of a table in order to confirm and compare the actual results with assumed hypothesis in their notebooks. The pair seemed to use task-related discussion, but could not justify their answers accurately, as evidenced below:

Farkhanda: what shall I weight?

Afzaal: this scissor (picking scissor from the basket)

Farkhanda: ok ...give me

Afzaal: wait

Farkhanda: what

Afzaal: you have to guess first

Farkhanda: hmmm (thinking)..... 5

Afzaal: write it down

Farkhanda: how [do] we spell scissor?

Afzaal: s c (silence) mmmmmmmmmmm

....

Afzaal: Miss how do we spell scissor? (asking from the class teacher)

Class Teacher: S-c-i-s-s-o-r

(They wrote it down on the notebooks)

Farkhanda: let's see (she started weighing)

Afzaal: see its just 0.2n

Farkhanda: yes its just 0.2 hehehehe (laughing)

Farkhanda: I thought it would be heavier (*Pupils' interaction in mixed ability pair work recorded in the first phase on 21-10-13 at 2:15-3:10*)

The pair appeared to guide each other to carry out the task by talking about the activity. The outcome of the activity was for pupils to learn to use different measurements labelled on the scales. The pupils were engaged in a joint problem-solving activity and used plural constructions such as "let's see". They engaged in various communicative processes, for example, asking and sharing hypotheses, negotiating spellings and generating a result. Pupils collaborated in task-related discussions, although their understanding only remained limited to the process of weighing the object in the force meter. They uttered "0.2 n" while reading the weight from the scale, but did not mention it while uttering a general guess "5". Neither partner could not quantify the measurements (the outcome of the activity) to label it in newtons in their notebooks (Field notes, November, 2013).

5.2.2 Off-task talk

Off-task talk refers to discussing something irrelevant to the given activity during group work. There were 13 areas of evidence from 13 sources that showed the occurrence of off- task talk among pupils. I noticed that pupils' off task talk did not appear to distract their attention from their work in either fixed or mixed ability groups. Pupils continued to work during such irrelevant and off-task talk. The pupils seemed to regulate group learning (Dekker et al., 2006) by controlling their off-task talk in the absence of their class teacher. They appeared to continue and sustain their concentration to complete the task. Their on-task and off-task talk were interwoven (Thornborrow, 2003) as an interplay, with them engaging in off-task talk and then changing to conversations about the given task in order to finish the assigned work. I provide empirical examples from interactional data to explain the nature of pupils' off task-talk during their group work under both fixed and mixed ability group structures, as follows:

5.2.2.1 Off -task talk in fixed ability groups

Observation of pupils' average ability group work showed that pupils were involved in off-task talk. In the following example, pupils were engaged in talk about T-shirts during their literacy lesson. They were expected to write book reviews individually in an average ability group. Although some of the group's members started talking about the t-shirts that they had painted in the Art lesson the week before, they remained focused on the given task, as seen in:

Omar: oooye (voice) I got five rubbers in different colours (a long time pause)

Amaad: look my T-shirt is pink

Afzaal: where

Amaad: there (pointing to the heating radiators)

Afzaal: are you recommending book to someone

Omar: yes I wrote it's good for nine and ten years old (*Pupils' interaction in average ability group work recorded in the first phase on 11/12/13 at 11:05-12:00*)

One of the group's members initiated off-task talk by talking about his five erasers to his fellow group members. After a few minutes, another boy at the same table pointed to a T-shirt (placed on the radiator). A few of their fellows (like Afzaal) were distracted for a while when looking at the T-shirt. However, this off-task discussion was closed by another group member, by reminding his peers to continue their assigned writing tasks. The pupils in this particular group seemed to help one another to control their irrelevant discussion and to regulate their concentration towards the given task.

5.2.2.2 Off-task talk in mixed ability groups

The observation of pupils' group work showed that pupils were also involved in off-task talk in mixed ability groups. Similar to the above, they seemed to regulate their off-task discussions and concentrated on their work, as explained below.

In this particular example, pupils from both the high and low ability groups worked on a PowerPoint presentation on "peace" in a mixed-ability group in the ICT lesson. They engaged in editing and adding information to their already developed slides. Although, pupils were involved in irrelevant talk about friendship issues, this did not appear to prevent them from working, as can be seen below:

Farkhanda (getting closer to Khuda): Sara is no more your friend

Khuda: Yeah I know, and I don't care

Farkhanda: Shall I ask Sara why?

Khuda: Okay.....mmm (thinking pause) no (silence pause) Don't go (silence pause) I don't care

Fatima: Who?

Khuda: Nobody. Shut up (*Pupils' interaction in mixed ability group work recorded in the first phase on 2/12/13 at 2:00-2:58*)

The extract showed that one girl initiated off-task talk by talking about a friendship clash. The other group members talked about friends for a while only. They discouraged their peer by not leaving their work. The girl of high ability did not seem happy after being probed by another group mate (Fatima) and asked her to stop. She appeared to manage the group's discussion by controlling the off-task talk of her peers and concentrated on work, stating "I don't care".

5.3 Cooperative interactions among peers

The observations of pupils' group work showed that pupils interacted cooperatively while working with others during their group work, as shown in the figure below:

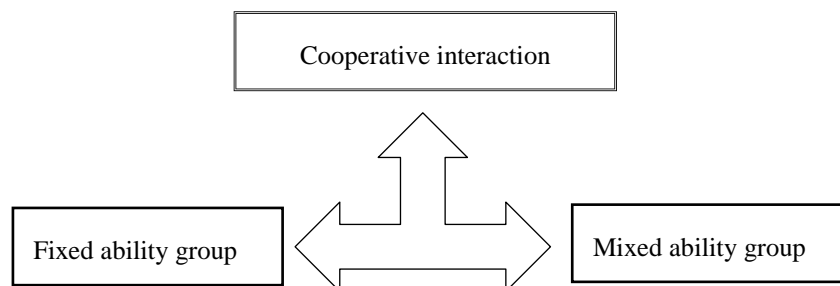


Figure 15: Cooperative interaction among peers

Cooperative interaction refers to the positive cognitive and social behaviours among pupils. It is defined as a situation in which peers support one another to work as a whole group, and not as contestants (Wendy, 2007). The interactional data showed that pupils remained cooperative toward their peers. The cooperation among pupils was recorded in the form of pupils' attitudes to help and encourage their peers during

their group work. I observed that pupils appeared to help one another by sharing learning resources to gain shared success. They offered academic and general help to their peers, and appeared to encourage one another by enhancing their productivity during their group work. I provide examples from the interactional data to explain the types of cooperative interactions among pupils in the following sub-sections:

5.3.1 Helping attitude

The observation showed that pupils exhibited cooperative interactions during their group work. There were 10 areas of evidence from 9 interactional sessions in which pupils showed helping attitudes towards their peers, as explained below.

5.3.1.1 Helpful attitude in fixed ability groups

Pupils exhibited “help-giving behaviours” (Gillies, 2014) towards their peers in fixed ability groups. They reacted positively towards the help-seeking behaviours of their peers by fulfilling their academic and general needs, as shown in the examples given below:

In one example of pupils’ group work, pupils negotiated positively to gain or give help from and to others. The pupils were expected to write a biography of a famous English musician, “John Lennon”, in a literacy lesson. In a low ability group, pupils appeared to cooperate with their peers by giving/sharing general object/items for example, a rubber and a ruler as evidenced by:

Farkhanda: Where is the rubber?

Saira: I got it (passing it to Farkhanda)

After sometime...

Danial: Give me ruler Farkhanda (she gave it to him)

Saira: Copy mine Farkhanda (she gave her work to

Farkhanda) (*Pupils’ interaction in fixed ability group work recorded in the first phase on 16/11/13 at 9:30-10:30*)

Pupils interacted with their group members in helpful ways to fulfil their needs and to support their writing task. The participants helped and shared their literacy work with each other. Pupils were given the same task to work under the same ability (low) based group structure. The shared task and group structure appeared to be the main reasons behind their helpful attitudes.

5.3.1.2 **Helpful attitude in mixed ability groups**

Pupils also exhibited cooperative interactions in mixed ability groups, as described in the examples given below:

In this example of mixed ability group work, pupils were expected to discover the processes of sound travel through vibrations while learning about Alexander Graham Bell and his landmark invention “the telephone” in a Science experiment. The pupils were paired by the class teacher, and were given essential material including plastic cups and long strings to conduct the experiment. She also oriented them to the process of conducting the experiment (i.e. to pinch a tiny hole in the bottom of each cup, pierce the given string through the hole and tie it with a knot). I observed that pupils showed positive attitudes towards their peers and worked together as a whole group, as can be seen:

Babar to Rafique: ooo (making voice) use pencil

Hassan: you can't do it with pencil use the ... (silence pause)
compass

Rafique to Hassan: can you do mine

Hassan: yes give me (he started making holes and putting string through it) (*Pupils' interaction in mixed ability group work recorded in the first phase on 25/11/13 at 11:00-12:05*)

The boys cooperated with their peers and guided them about the experiment. Hassan helped his partner by piercing a hole in his cup after finding him struggling to pierce the hole himself. His cooperative attitude transformed the pair work in the group work, as their further interaction indicated:

Rafique (coming back to table): Babar. We can hear (Babar was busy in making holes yet)

Rafique: Ask Hassan

Hassan: Yes... (*Pupils' interaction in mixed ability group recorded in first phase on 25/11/13 at 11:00-12:05*)

Hassan did not only offer his help to his partner but also to other pupils on his table. As a result, nearly all pupils working on the same table started working as a group. Hassan acted as a facilitator to help everyone at his table. The pupils were given a

common task which seemed to generate cooperation among them and led them to form a large group independently without being asked.

Pupils sometimes appeared to be cooperative by helping their peers voluntarily. For instance, the below mentioned example of mixed ability pair work showed that pupils were expected to finish their presentations individually in an ICT lesson. The helpful attitude of the girls seemed to generate positive interdependency and cooperation between them. The girl from high ability group helped her partner from the average ability group, who was struggling to turn on her laptop, as indicated below

Khuda: Press cancel

Farkhanda: I did but not going

Khuda: Just press cancel let me do it (she tried)

The message was still there

Khuda: Go and put that away

Farkhanda: OK (*Pupils' interaction in mixed ability pair work recorded in the first phase on 9/12/13 at 2:00-2:58*)

Khuda appeared to be cooperative towards Farkhanda and attempted to help. She tried to solve her problem without being asked by advising her partner to press the cancel button. The girls were actually involved in an individual task. However, the helpful interaction of Khuda helped Farkhanda to identify the technical error and she agreed to bring another laptop.

5.3.1.3 **Helpful attitude outside the classroom**

Pupils exhibited cooperative interactions by displaying helpful behaviours to support their peers during their outdoor group work. They appeared to help one another to perform the given activity as a group, for instance, when they were paired by the class teacher to undertake some gymnastics games during a PE (physical education) lesson. I also observed a pair of boys who seemed to be helping each other while performing some exercises. When one partner could not perform a forward roll, he was helped by his partner, as can be seen below:

Afzaal: Come on watch me ... go like that

Rafique was watching him. [Rafique tried to follow his partner but couldn't do it at first. Every time the pair ended up laughing a lot. Rafique simply sat on the mat on his knee and could not push his legs forward. Adil rolled on the

mattress many times to teach Rafique. Finally, after a few attempts, he was able to roll, but not forward exactly, and could only roll his legs to the left side].

R: Afzaal I can do its getting better

Afzaal: Yes it is come onyou do from the other side
(Observational filed notes recorded in PE lesson in the first phase on 3/12/13 at 1:30-2:30)

The pair appeared to support each other by displaying cooperative interactions to perform the gymnastic activity. The helpful attitude of one partner enabled the other to practice the particular exercise.

5.3.2 Encouraging group members

Encouraging others was another type of positive interaction shown by pupils in mixed ability groups. Pupils praised their peers' efforts and encouraged them to motivate their learning (Gillies and Boyle, 2010). Encouraging group members was not very common among pupils. There was only three areas of 3 evidence from two interactional sessions in which the pupils encouraged their peers during group work.

In this example of pupils' group work, pupils were engaged in their individual writing tasks about the "Second World War" in a literacy lesson. They were allowed to discuss their opinions with their group mates, as instructed by their class teacher. The pupils appeared to interact with their peers cooperatively by encouraging their efforts, as noticed below:

Numen: Look at my small writing... (Silence pause) its rubbish

Omar: No it's not rubbish better than me *(Pupils' interaction in mixed ability group work recorded in the first phase on 12/11/13 at 11:30-12:00)*

The pupils appeared to adopt cooperative interactions by encouraging and appreciating their peers. The particular boy (Omar) seemed to motivate his peer (Numen) who did not feel positive about his writing, and considered it "rubbish". Omar's positive reaction encouraged his partner and stopped him from feel low about his writing. The pair shared work with each other to give and receive positive feedback, while being cooperative.

In the same mixed ability group, another example of cooperative interaction through encouragement and appreciation among pupils was observed. This time two girls appeared to appreciate and encourage each other while working as a pair. After finishing their individual work, a pupil shared her work with her peer and received appreciation, as seen in the following example:

Sumaira: Yes. I have done it (repeating)... done it

Huma: I like that (pointing to Sumaira's work)

Huma: and I like that..... that one.... that [one]

Sumaira: I am on my first page ...look (inviting Huma), I wrote my signature here and on every page look ... this [one]

Huma: OK, I am doing now. (*Pupils' interaction in mixed ability group work recorded in the first phase on 12/11/13 at 11:30-12:00*)

This particular girl (Sumaira) repeated her words "done it, done it", probably to declare to her group that she was finished. Sumaira's group member (Huma) appreciated her work: "I like that, I like that", and encouraged her with praise. Overall, neither girl encouraged the boys, nor the boys encouraged girls, despite sitting at the same table. They appeared to encourage same sex peers only.

In another example of pupils' outdoor group work, pupils appeared to encourage one another to play games together as a pair. As the pupils were learning the rules to play basketball in teams, I observed that in one team the pupils appeared to encourage their peers to help with their confidence in handling the ball, such as:

Farkhanda hurt her nose with ball so she refused to play the game anymore. One of her team members, Sara, requested that they start again, and told her to pass ball to each other carefully. Farida was afraid of the ball for fear of getting hurt again, but Sara practiced with her for a while. She passed the ball gently and continued smiling. Farida missed the catch twice, but Sara didn't make her go to pick the ball up, but rather went herself to pick the ball from the corner and gave it to Farida for her next turn (*Observational field notes recorded in a PE lesson in the first phase on 13-11-13 at 14:15-15:05*)

The encouragement from another team member appeared to encourage Farkhanda to play the game which had been about to quit. Sara appeared to show cooperative interactions towards her team member which enabled her to play with rest of the team.

5.4 Non-cooperative interactions among peers

Pupils exhibited non-cooperative attitudes towards their peers during their routinely organized fixed and mixed groups, as illustrated in the figure below:

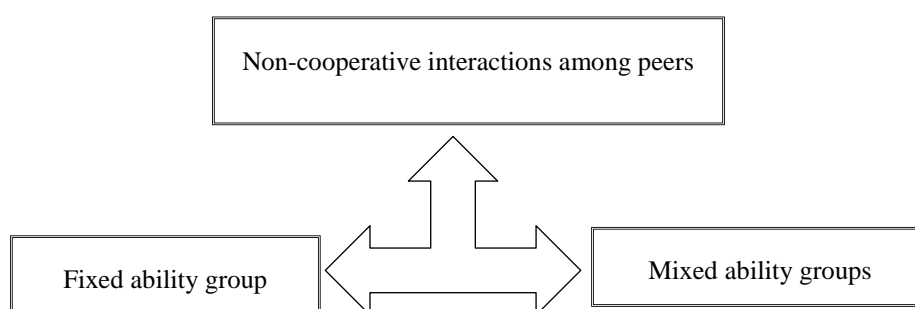


Figure 16: Non-cooperative interactions among peers

Non-cooperative interaction is defined as types of behaviours and attitudes which are unfavourable and non-supportive for group collaboration, such as competition or mistrust among pupils (Johnson and Johnson, 1989). The observational data showed that the pupils exhibited non-cooperative interactions towards their peers during their group work. The non-cooperation among pupils was recorded in the form of pupils' attitudes to show competition and mistrust towards their peers during their group work. I observed that pupils seemed to create a competitive atmosphere by comparing and evaluating their performance with others (Attle and Baker, 2007). They put themselves in a state of urgency (Shindler, 2009) to finish the given task earlier than their group mates. Moreover, they appeared to mistrust their group mates and refused to give or receive help from them, despite working in groups. I provide empirical examples from the interactional data to explain the types of non-cooperative interactions among pupils, in the following sections.

5.4.1 Competition among peers

Competition is defined as a social process in which rewards are given to the good performers by comparing their performance with others engaged in the same activity (Shindler, 2009). The observation of pupils' interactions showed that pupils occasionally seemed to be competitive during their group work inside the classroom. From time to time they appeared to put themselves in competitive situations to be the

winner. For instance, five examples from five interactional sessions show that pupils wanted to take the lead over their peers. Often, pupils did not want to work as a group and emphasized their individual performance during their shared group work. Six evidences from four interactional sessions reported that pupils placed an emphasis upon their independent capabilities while working in groups, as explained below.

5.4.1.1 Competition in fixed ability groups

Pupils sometimes wanted to lead their peers during fixed ability group work. They appeared to finish their assigned tasks earlier than everyone in the group.

In one example, pupils were expected to write poems on “peace” in one literacy lesson. The pupils were instructed to share their opinions or verses (that they had just written in their notebooks) with their peers at the end of the lesson. However, the pupils in one of the high ability groups generated competition and attempted to lead one another by raising their hands first to show that they had finished earlier than their peers, as can be seen below:

Class teacher (ringing bell for silence): Let’s see your points

so far

Rafique raised his hand

CT: Yes

Huma: Ohhh.... Every time Miss

CT: OK, after him yes Rafique

Rafique: ah ah..... (Continued writing)

CT: Well you always do this you didn’t finish and raised your hand up (*Pupils’ interaction in fixed ability group work recoded in the first phase on 3/12/13 at 11:00-12:00*)

The participants appeared to display competitive interactions by trying to present their work first in the particular group. They finished their work individually and did not discuss it with their peers in the group. They desired to be the winner and concentrated on their individual performance, despite working on a shared task. The boy (Rafique) showed competitiveness by wanting to take the first position by raising his hand before finishing his work properly. The disappointment of the girl (Huma) upon losing her first turn also showed her competitiveness. She did not seem happy with the class teacher, who chose the particular boy to share his points first, and perhaps made her lose the winning position.

At times, pupils hesitated to accept their mistakes identified by their peers. In one example of the average fixed ability group work, pupils were expected to work on an individual task sheet in a Numeracy lesson. Each pupil in the group was trying to finish their mathematical questions individually. I noticed that pupils seemed to ignore their peer's feedback when they attempted to help them. Pupils refused to correct their work by being competitive, as shown here:

[Extract 01]

Isma: It's not correct its 4

Babar: No. its 3

Isma: 1 times 7 = 7 and then 2 times 7 = 14 (continuing) then you take 4 away from 8 so its 4 yes Babar

Babar: No it's 3 no its 3. I know and I am right. (*Pupils' interaction in fixed ability group work recorded in the first phase on 21-10-2013 at 10:05-10:40*)

[Extract 02]

Babar: Why have you written 26?

Ahsan: It's partitioning

Babar: It's not partitioning. We are doing division man.

Ahsan: No I'm right.

Babar: I am telling you how to do it

Ahsan: No I'm doing my own I can do it ...Miss gave me my own sheet.

Babar: You can ask me for help ... you can ask Miss as well (*Pupils' interaction in fixed ability group work recorded in the first phase on 21-10-2013 at 10:05-10:40*)

The above examples show that pupils did not seem to accept help from their peers to improve their work. They refused to accept peers' feedback to correct their work and did not want to be guided by their colleagues. In the first example, Isma explained the entire division sum to Babar by acting as a helpful peer. She elaborated her answer to enable Babar to understand his mistake. The question was 88 divided by 7, and Babar wrote $w12r 3$ as an answer. Isma intervened and corrected his answer. She explained that there should be four as remainder, and not three. However, Babar refused her help

by being competitive. He refused to listen to her suggestion to correct his mistake, and emphasized his incorrect answer continuously, stating, “No its 3 and 3”, and “I am right”. In the second example, two boys appeared to argue over their answers and did not accept each other’s feedback. Ahsan refused to accept his fault and denied replacing 36 with 26 to correct his answer by ignoring his peer. He emphasized that the class teacher gave him his own (individual) work, and therefore, he did not need to interact with anyone or receive help from them.

Individual work seemed to act as a hurdle for cooperation due to which pupils refrained from discussing their work or listening to one another’s suggestions. The pupils inferred that they were not expected to interact with others to work together. The allocation of individual work seemed to be interpreted as evidence that they were capable of working individually. Consequently, they reacted negatively towards their peers and rejected feedback to correct their mistakes.

5.4.1.2 Competition in mixed ability groups

The competition among group members appeared to increase when pupils worked in mixed ability groups. Pupils generated more competition with peers, who had different, and particularly lower attainment levels, than those when working in mixed ability groups.

In one example, pupils from the high ability groups did not allow their peers from the average or low ability groups to gain success by completing group tasks first. The pupils were involved in mixed ability pair work by their class teacher in one Numeracy lesson, where they played games when choosing factors and multiples for certain numbers mentioned in the given sheet. The pairs had to record their winning points for each partner on a whiteboard. In the following extract, both girls (Khuda and Sumaira) played the game together to find the factors and multiples of 26, when a pupil from the high ability group appeared to generate the competition, as follows:

Khuda: There is no more (looking at the sheet)

Sumaira: There is

Khuda: Where come on tell me (passing the sheet to her)

Sumaira: (looking at it) I am going to do it ... don’t wanna [want] lose this game no way.

Khuda: Come on girl we need to do more. (*Pupils' interaction in mixed ability pair work recorded in the first phase on 13/11/13 at 9:30-10:20*)

The pair was engaged in a shared task. However, Sumaira from the high ability group did not allow her partner from the average ability group to win a point. She uttered: "I don't wanna lose this game, no way" thereby generating competition. Compared to Sumaira, Khuda seemed to show cooperative interaction by using plural pronouns such as; "Come on girl, we need to do more", which indicated her willingness to continue their work as a shared activity. She seemed to suggest Sumaira move on to the next number. However, Sumaira seemed to mind her individual success by continually searching another multiple of the same number (26).

5.4.1.3 Classroom intervention to address competition among pupils

In the second phase of observation, I planned a few group-based activities (see Appendixes 01 A, B and C) to further explore competition among pupils. I discussed with the class teacher to organize "The discussion wheel activity" (see Appendix 01 B) in which pupils were supposed to work together as a group. Each member in the group was expected to contribute by writing their ideas in different boxes of the wheel. Pupils were expected to share, discuss and learn from one another while working on the activity. The discussion wheel activity took place in one normal Literacy lesson in order to encourage pupils to work with their peers under the formal cooperative group structure. I guided the class teacher on how to conduct this activity (see Chapter 3, Section 3.5.4) before the lesson, and participated in the lesson only as an observer. I did not expect a sudden change in pupils' behaviours by involving them in structurally designed group-based activities for a short time, however, I wanted to observe pupils' interactions to understand their thinking towards structured cooperative group work.

The observation suggested that pupils' competitive interactions were not changed by changing their group structures. They did not seem to forget their individualities despite working on the shared tasks. They continued prioritising competitiveness by highlighting their individual contributions. For instance, in the following example of pupils' group work, pupils were expected to discuss "the confusions of Lady Macbeth when she convinced her husband to kill King Duncan", in their groups during a Literacy lesson. They were given especially planned group-based discussion wheel

worksheets (Appendix 01B) to share, discuss, and write their views as a group. I noticed pupils did not seem to work together as a group, regardless of the given instructions and materials to work collaboratively. They did not appear to merge themselves as a group and maintained their individuality and competitive nature, as seen here:

[Extract 01]

Amaad: Two boxes each

Hassan: You write here

Shoaib: Where shall I write?

Amaad: I want to do more (*Pupils' interaction in mixed ability group work recorded in the second phase on 06/05/14 at 11:00-12:00*)

[Extract 02]

Isma: I will write with pen (giving sheet to another girl) you choose your colour. Write with your own colour (*Pupils' interaction in mixed ability group work recoded in the second phase on 06/05/14 at 11:30-12:00*)

The participants did not negotiate or share ideas with others to work as a group on the given task. They divided the boxes among themselves to write individual views in separate boxes. They also used different colours to differentiate their points from one another. While undertaking the same activity, pupils in another group used different colours to highlight their own boxes, as shown in the figure below:

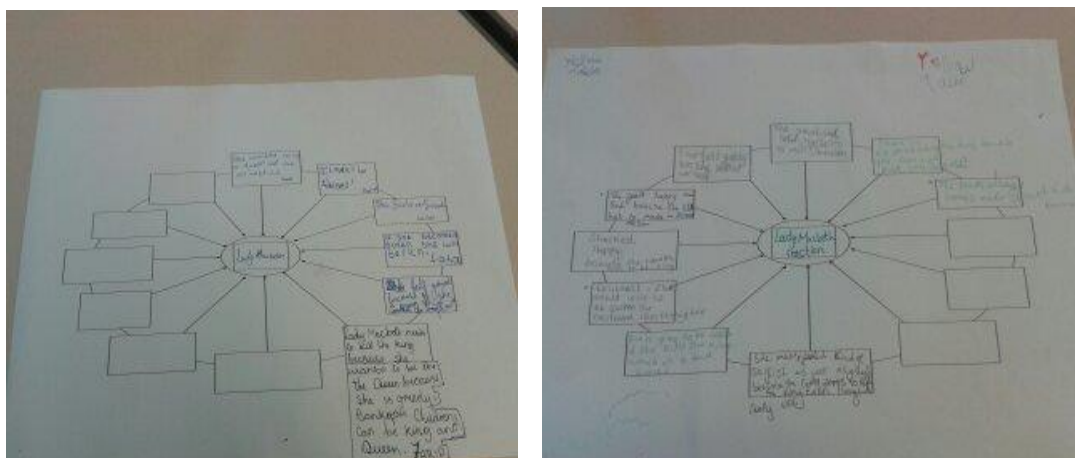


Figure 17: Pupils used different colours to highlight their ideas

The observation of pupils' specifically designed cooperative group work structure also highlighted the attitude of the class teacher. For instance, while organising the discussion wheel activity, the class teacher addressed her pupil:

“Hurry up we have to get back to our normal lesson”
(Observational field notes of literacy lesson noted in the second phase on 06/05/2014 at 11:30-12:00).

The evidence indicated that the class teacher did not seem to perceive the group-based activity as a part of her lesson plan. She emphasized going back to her actual lesson to accomplish the teaching targets for the particular lesson. She provided pupils with opportunities to participate in group work, but could not allow pupils to continue their work on the group-based activity for a longer period of time. She seemed to stress on fulfilling her other teaching commitments rather than organising planned group-work to eliminate competition among pupils in her class.

5.4.2 Mistrust among peers

Trust is defined as ones' willingness to rely on others' actions in a situation. It reflects peoples' expectations that others will help them and will not harm them with their actions (William, 2011, p.378). The interactional data showed that the pupils did not seem to trust one another in their small groups. They appeared to mistrust their peers for stealing and copying their work. Pupils' complained about having their work copied and had a sensitivity towards keep their work secret (11 areas of evidence from nine interactional sessions) from their peers, which could not help to develop interdependency as a group. Pupils did not give or receive help from one another (16 evidences from nine interactional sessions) during their routinely organized group work, as explained in the following sub-sections.

5.4.2.1 Mistrust in fixed ability groups

Pupils mistrusted their peers and blamed them for copying their work while working in fixed ability groups.

The following example of pupils' group work showed that pupils did not share their ideas or work with group members. They were expected to work on multiples and factors of a few numbers in pairs. I observed that pupils tried to hide their work from their peers while undertaking the same task in one average fixed ability group work in a Numeracy lesson, as evidenced by:

Hassan: there is no more

Shoaib: Are you sure

Hassan (after thinking for a while): Yes

Shoaib: There is only one in twenty five No... No [twice]
there are two

Hassan: silence [he was looking at Shoaib, who didn't explain
the other factors] 1 times 25 so 1

Shoaib: silent [keeping basket next to his notebook]

Hassan: Why are you putting basket here?

Shoaib: You are copying me

Hassan: No I am just asking you one of those [factors]

*(Pupils' interaction in fixed ability group work recorded in
the first phase on 10-12-13 at 9:30-10:40)*

The participants did not seem to trust each other while working on a shared task during pair work. Shoaib did not help his partner, and accused him of copying his answers. Shoaib's partner (Hassan) asked him for his help to identify another multiple of 25. He did not help Hassan in finding the particular factor 5×5 and focused on his individual work. He tried to hide his work from Hassan and appeared to mistrust his peer, despite working on a shared task under a cooperative group structure.

5.4.2.2 Mistrust in mixed ability groups

Pupils appeared to mistrust their peers and accused one another for copying their work while working in mixed ability groups. While observing mixed ability group work, I noticed that sometimes pupils mistrusted other group members due to their placements in different ability based groups. For instance, pupils from the average ability group did not show any trust with their peers from low ability groups, by ignoring their efforts or ideas while working on the shared tasks. Similarly, pupils from the low ability group did not show any trust that their classmates from average ability groups would help them during their lesson. The nature of mistrust recorded in pupils' interactions in mixed ability groups is explained through the following empirical examples:

In one example of mixed ability group work, pupils were engaged in an individual writing task in a literacy lesson. A pupil from a high ability group appeared to blame her peers for stealing and copying her work, such as:

Sumaira: Where's my thing gone [while looking something at the table], Yeah! This is my page [taking a page from the table].... you have taken haven't you? [asking to Numen]

Miss he is taking my pages. Misshe is copying our work

Hassan: No MissI know what to do ...Miss you have to do.....

Sumaira: no... Miss... he is copying my work [she was asking about Numen]

Numen: I don't copy you

Mr John: Red table you are two noisy

Sumaira: Sir these boys are copying us (*Pupils' interaction in mixed ability group work recorded in the first phase at 12-11-13 at 11:30-12:00*).

The participant (Sumaira) did not appear to trust her peers and accused them of stealing her pages to copy her work. Her group members (boys) denied her complaint and justified that they did not need her pages to copy as they knew the given task very well. However, Sumaira did not seem to trust them and continued blaming them. The pupils did not work as a group from the start of the lesson. They were given an individual task and were placed under an individualistic group structure by the class teacher, which seemed to encourage them to prioritise their individual performance by mistrusting their peers. The extract also highlighted that the pupils seemed to develop gender biased mistrust for their peers while pairing with their same sex peers. Sumaira's comment "us" and Hassan's interference to defend Numen hinted towards a gender biased mistrust between both pairs, which appeared to illuminate trust among group members, as explained further (see Chapter 5, Section 5.5).

Pupils from the high ability group appeared to mistrust their classmates from the average and low ability groups while working in the mixed ability group. They refused to accept their viewpoints and contribution to complete the shared task. For example, on one occasion pupils were involved in mixed ability pair work to work on a power point presentation in an ICT lesson. The girl (Isma) from the average ability group emphasized using the image that she had selected. She did not let her partner (Sonam) from the low ability group select an image. She rejected her suggestion throughout the dialogue, as can be seen below:

Isma: That one hippie [pointing to the computer screen] and putting her hand on it)

Sonam: No

Isma: No that one ... and done. It will be.... Okay... Let's do this one too [selecting another image]

Sonam: No ... that one is good [pointing to a different image]

Isma: Oh no..... no way

Sonam: See you never listen [to] me (*Pupils' interaction in mixed ability pair work recorded in the first phase on 3/12/13 at 2:20-3:08*)

The participants did not seem to develop any trust to work together. The girls searched for the images of “hippie” together, but did not agree on any one image to add in their slides. The girl from the high ability group appeared to mistrust her peer's abilities, and did not give her an opportunity to use her chosen images, or contribute in their joint presentation. She refused her choice of images and appeared to take a dominant role by saying: “Done it will be” and “No way” to show that her selection was final.

In another example of pupils' mixed ability group work, pupils from the low ability group did not seem to trust their peers from the high and average ability groups to accept help from them. Pupils were expected to draw a Venn diagram to categorise objects as solids, liquid and gasses, in groups in the Science lesson. They were given a shared task and were expected to discuss the lesson with one another by their class teacher. Nevertheless, the pupil from the low ability group did not seem to accept help from her peers, as shown below:

Hassan: There is no in liquid and gas

Isma: Fizzy drink and juices

Hassan: Foil

Isma: Oh noit's not a gas (she looked at Sana's work)

Sonam: I don't care

Hassan: Ah..... You have too (*Pupils' interaction in mixed ability group work recorded in the first phase on 11/12/13 1:15 -2:00*)

The girl from the low ability group did not trust her peers to accept their help. Her group member (Isma from the average ability group) pointed to her notebook, and

identified an object that was not gas, but Sonam (a girl from the low ability group) had categorised incorrectly. She, with another colleague (Hassan), wanted to improve her understanding by attempting to tell her the right answer. However, the girl (Sonam) ignored their help and seemed to mistrust them by saying, “I don’t care”.

5.4.2.3 Classroom intervention to address mistrust among pupils

I proposed a debriefing activity (see Appendix 01 C) to encourage pupils to trust one another during their group work in the second phase of the data collection (see Chapter 3, Section 3.5.4). The debriefing activity was aimed to explore pupils’ experiences of working together as a group. The pupils were asked several questions during the debrief sessions that were organized at the end of their group work. The purpose behind such discussions was to hear pupils’ responses about sharing and discussing ideas with their peers. Through questioning pupils, we (myself and the class teacher) intended to clarify pupils’ confusions about copying. The class teacher was guided to prolong pupils’ responses to remind them of the importance of working together. We also wanted to enable pupils to understand that sharing does not mean copying, and there are always opportunities for them to share ideas with others to help them while working as a group.

As part of the intervention, on one occasion pupils were given a group task relevant to their normal lesson in a Literacy class. In the last fifteen minutes of the lesson, the class teacher organized a formal debriefing discussion. The pupils shared their views about sharing ideas and discussing with others peers in their groups. I noticed that some of the pupils were not in favour of the idea of sharing their views or work with peers while working in a group. For instance, in one group pupils reflected on their experiences of working with others, and shared:

Afzaal: Some of them were sharing their ideas so I would say group work in our table was 80% only.

CT: And who was not sharing

Afzaal: Shoaib

CT: Shoaib, why you haven’t had a go

Shoaib: Miss, because other people steal your ideas.

CT: But it’s good if your ideas are working for others

Shoaib: Yeah, but I can do which they don’t so why should I tell them (*Pupils’ interaction in mixed ability group work recorded in the second phase on 14/05/14 at 11:00-12:00*)

Pupils acknowledged sharing and trusting their peers in the particular group. They described their group work as ‘80 per cent good’. However, they reported Shoaib to be an unhelpful peer who did not share his ideas. On further exploration, Shoaib mentioned that “*He did not like sharing his work*” and expressed his desire for engaging individual work without sharing, or giving and receiving help from others in his group. He appeared to refuse the idea of interacting with his peers and seemed to believe that everyone is responsible for their own learning.

In terms of addressing pupils’ complaints of being copied, the class teacher appeared to regard it as a usual matter. During an interview, the class teacher reflected on her pupils’ feelings of mistrusting their peers, and shared:

When we are working together like all doing exact the same piece of work like I say everyone colour in green red and yellow they [will] all do it but someone will say she is copying me... [Laughing loudly]....I mean what is the point you are doing the same thing (*Interview taken from the class teacher during the second phase on 7-7-14 at 3:30*)

In her view, the pupils mistrusted one another and developed competition between themselves and their peers without thinking. She appeared to consider it as a normalised practice by giving an example of a debriefing activity that she ran in the classroom. In the activity, she expected pupils to fill in red, yellow, green boxes to show their understanding of the concept at the end of each lesson. She wanted pupils to share how much they had learned and how much help they needed to further understand the particular learning concept. It was an individual activity but as shared by the class teacher, the pupils hid their boxes from one another. They continued to complain about being copied while doing the particular individual based debriefing activity.

5.5 Gender division among peers

The interactional data suggested that pupils exhibited gender-based interactions during their routinely organized group work, as shown in the figure below:

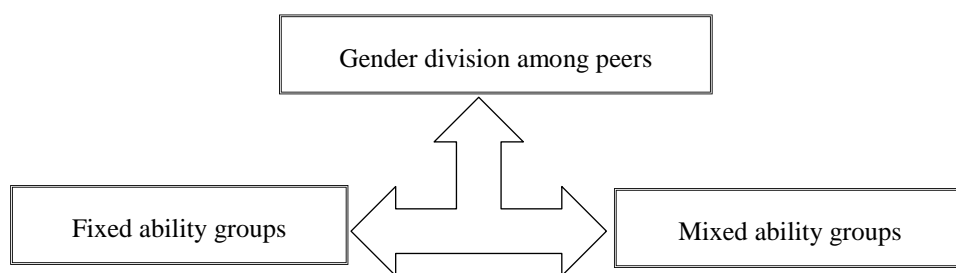


Figure 18: Gender division among peers

Gender division/separation is defined as the classification of girls and boys during their interactions with others in all normative developmental contexts, including workplaces and schools (Mehta and Strough, 2009, p. 202). The observations of social interactions among pupils showed that the pupils seemed to build gender-based identities for themselves and for their peers intentionally (eight areas of evidence from six interactional sessions). They did not co-operate with other-sex peers and appeared to exclude a few of their peers from their group work due to having differences of gender while working in groups both inside and outside of the classroom.

5.5.1 Gender division in fixed ability groups

Pupils' group work in fixed ability groups showed that pupils from all (high, average and low) fixed ability groups appeared to prefer to work with their same-sex friends, as explained below.

In one example of pupils' group work, the pupils seemed to create a gender division in their group to work with the same-sex peers. Pupils from the same (average) ability group were involved in a writing task in a Literacy lesson, where they were instructed by their class teacher to discuss their ideas in groups. I noticed that the pupils interpreted their class teacher's message in a different way to facilitate their decisions of working with same-sex peers, as shown in the example below:

Khuda: We both [girls] will do together and you [boys] do together right.....

Huma: Yeah! We are working in pairs not in groups (*Pupils' interaction in fixed ability group work recorded in the first phase on 25-11-13 at 9:30-10:40*)

In this particular group both girls supported each other to work as same sex partners. They seemed to exclude the boys from their group, and appeared to generate gender segregation during their inclusive group work.

5.5.2 Gender division in mixed ability groups

Similar to the fixed ability's group work, the pupils were observed creating gender segregation in mixed ability groups.

In the following example, pupils were placed in mixed ability groups or pairs by the class teacher. They were expected to discuss the features of report writing in one Literacy lesson. The class teacher instructed them to discuss the given task together with their peers as a group. I noticed that the pupils, particularly the girls, appeared to favour same-sex peers for their group work, as takes place in the below given extract:

Saira (dragging her chair and pointed Khuda): This is good luck and this is not good (pointing to her partner)

Amaad: It is so good when Miss asked us with who you want to sit?

Saira: Yeah! I would like to be with Kim (*Pupils' interaction in mixed ability group recorded in the first phase on 11/11/13 at 11:05-12:00*)

The girls in the particular example appeared to choose gender separated learning environments to only work with other girls of the class. Saira dragged her chair to get close with the other girls of the group, and did not want to sit next to a boy (Amaad). Later on, as the pupils' discourses indicated, they seemed to regard same- sex peers as representing good luck, and working with other-sex peers as representing bad luck. They appeared to express disappointment for their current mixed sex group, and preferred to work with same-sex peers.

5.5.3 Gender division outside the classroom

The observation showed that pupils also appeared to exhibit gender biased interactions during their group work outside of the classroom. The pupils were observed in the playground, in assemblies and in some other social events to note their interactions with peers outside of the classroom.

I noticed that the pupils appeared to adopt gender biased interactions towards others. For instance, once the class teacher asked the pupils to play a few running games in pairs. A boy was paired with another girl of the class. The rest boys of the class

encouraged him to swap the partner. They seemed to emphasize gender differences, such as:

The class was sitting on the floor in a semi-circle. The girls were sitting in one corner of the circle and all the boys in other corner. Danial was sitting next to Saira because she was the last girl in the girls' line and Danial was the first boy in boys' line. The class teacher and support teacher set up the floor with different coloured blocks. The pupils had to jump over those blocks. After finishing with the blocks they had to skip 15 times with skipping ropes. They then had to roll over, both forward and backward, on the mattresses placed near the finishing line. The pupils were grouped as pairs to do all these activities. When the class teacher was grouping the children, Danial's friend (Afzaal, Dauod and Babar) told him to swap places as he had to play with Saira. Danial was quiet. He put his hands on his face. (*Observational field notes taken in PE lesson in the first phase on 7-1-14 at 13:15-14:15*)

In the given example, Danial appeared to look unhappy due to being paired with a girl to play the assigned physical activities. His friends suggested to him that he change his place. The class was paired by the class teacher. Therefore, Danial could not change his partner and seemed to participate in the lesson unwillingly.

5.6 Synthesizing the nature of pupils' interactions

The above explained findings from the interactional data reveal the nature of pupils' interactions in the following ways:

- Pupils used task-related discussions during their group work in the observed classroom. They used off-task talk under various grouping structures organized in the particular classroom. However, they appeared to regulate their off-task talk and make an effort to finish the given task on time by switching their off-task conversations quickly. The pupils demonstrated the ability to control off-task talk in fixed ability groups. In mixed ability groups, pupils from the high ability group helped their group mates to regulate off task talk. The class teacher or other adults (support teacher) of the classroom played a vital role in making pupils' task-related interactions productive as well as non-productive. The class teacher mediated discussion in one mixed ability

group and the over interference of the support teacher appeared to hamper pupils' interactions in one fixed ability group.

- Pupils sometimes exhibited cooperative interactions during their indoor and outdoor group work in the observed classroom. They appeared to adopt kind and helpful roles to fulfil their peers' needs. They offered help and accepted help, shared resources, and cooperated with one another to pursue the given task together as a group. They also encouraged each other occasionally both inside and outside of the classroom. However, pupils mostly demonstrated non-cooperative interactions during their group work in the observed classroom. They appeared to be reluctant to work collaboratively, wanted to be the first to complete tasks, and refused to accept peers' suggestions and feedback to improve their work during their group work. Pupils emphasised their individual performances and did not prefer to share their work with others. The group structure and nature of the task seemed to play a vital role in generating competition among pupils. The help from their peers while working on individual tasks under individualistic group structures. They considered themselves to be capable of doing everything. Pupils were also uncooperative with their peers in terms of mistrusting them, and blamed their peers for stealing and copying their work. Moreover, they appeared to mistrust one another due their categorisation in particular high or low ability groups, which decreased cooperation among them. Pupils from the high ability group did not trust their peers from low ability group to contribute in groups discussions. Similarly, pupils from the low ability group did not trust their peers from high or average ability groups, by refusing to listen to their suggestions and feedback in mixed ability groups.
- Pupils' interactions were influenced by their gender-biased identities in the observed classroom. Pupils preferred to work in single sex groups and did not cooperate with other-sex peers, regarding it as an inappropriate place for a mutual group work both inside and outside the classroom.

5.7 Summary of the chapter

This chapter has explained the nature of pupils' interactions during their routinely organized groups work to explain the answer to the initial main questions of the study. In the upcoming chapter, I provide empirical examples from the interview data in order to explain pupils' perceptions of group work, and to identify the reasons/motives

behind their above-mentioned interactions to explain answers for the second and third questions of the study.

CHAPTER 6: PUPILS' PERCEPTIONS OF INTERACTING AND WORKING WITH OTHERS IN GROUPS

6.1 Introduction

This chapter explains pupils' perceptions of interacting and working with others during their group work. Pupils' perceptions of working with others in groups were gathered through informal conversational interviews at the end of each phase of data collection (see Chapter 3, Section 3.5). In this chapter, I explore pupils' thinking about group organisation and composition, and their experiences of working under different grouping structures. I also analyse pupils' desires to improve their interactions with others by highlighting the benefits and challenges they face during their class-based group work. The chapter comprises of four sections which explain the categories of pupils' responses that derived from their interviews.

Section 6.2 illustrates pupils' thinking about the meaning and definitions of group work.

Section 6.3 explains pupils' responses to analyse their understanding about groups, group work and its composition.

Section 6.4 outlines pupils' experiences of working in different (fixed and mixed) ability groups.

Section 6.5 describes pupils' aspirations to improve their group work.

6.2 What do I mean by "Groups"?

This section describes pupils' understanding about their "groups and group work" organized in their classroom and overall in school. The data shows that most pupils could not describe their groups. Pupils did not seem to mention the word "group" during their interview. They appeared to mix the term "groups" with their "tables" to define tables as their groups as shown in the extracts below:

[Extract # 01]

Me: Which group do you work in?

Danial: Group, what do you mean (*Interview taken from pupil from the low ability group in the first phase on 11/12/13 at 2:45*)

[Extract # 02]

Me: Which group do you work in?

Ahsan: In what?

Me: Like when you do your lessons in numeracy or literacy where do you sit?

Ahsan: OK, in numeracy I am on purple table in literacy I sit on red table no... no blue table (*Interview taken from pupil from the average ability group in the first phase on 17/12/13 at 2:00*)

[Extract # 03]

Me: Which group do you work in?

Sumaira: Miss like what group?

Me: Groups, like your tables

Sumaira: Yeah! I am on green table (*Interview taken from pupil from the high ability group in the first phase on 13/12/13 at 2:00*)

Pupils from the high, average and low ability groups mentioned their allocated colour (like green, red, blue and purple) tables, and seemed to interpret their groups as a way of allocating pupil's seats at different tables rather than groups. In the classroom context the class teacher assigned pupils different coloured tables to work at in groups, as shown in the figure below:

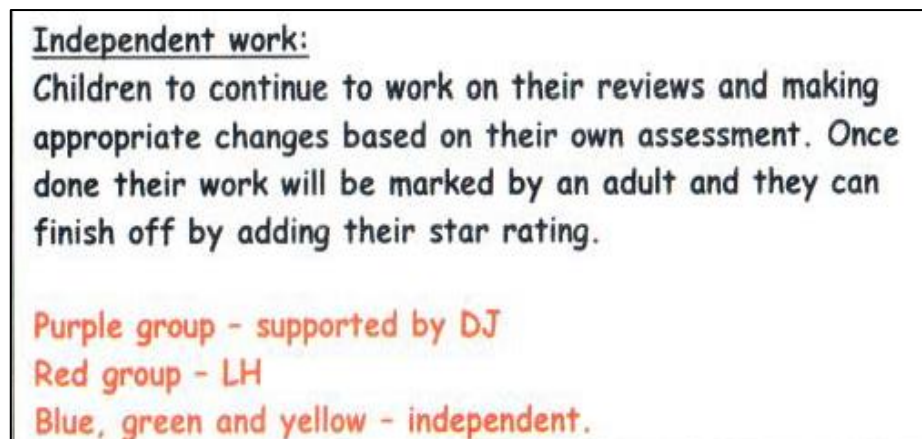


Figure 19: Sample of ability-based differentiated teaching (09/12/13)

The class teacher used the term “group” in her lesson plan but referred to these group as tables: “that yellow table, at your table” (Field note, December, 2013), and this appeared to influence the pupils to perceive their groups as tables only.

6.3 Group's composition/what do I know?

This section describes pupils' perceptions of the organisation of group work in class 5GH. The pupils from all ability groups (low, average and high) were asked to share their understanding of the group's composition. They defined their groups' placements differently. Their responses showed that the pupils from the high and average ability groups were aware that their groups were formed by considering their distinctive academic levels. They expressed an awareness of the ability-based differentiation used by their teacher to group them. Pupils from the low ability group, however, made no mention of ability-based grouping and considered it as their class teacher's choice. They also appeared to link group allocation with the behavioural management of their peers, as explained in the section below.

The pupils from the average and high ability groups were aware of the ability-based grouping strategies applied in the particular classroom, as seen in the extracts below:

[Extract # 01]

Me: Why is your table is called blue?

Ahsan: That's the table where our levels are

Me: So do you know your levels

Ahsan: Yes, 3 B (*Interview taken from pupil from the average ability group in the first phase on 12/12/13 at 2:30*)

[Extract # 02]

Sumaira: We sit on different table like for maths I sit on green highest table

Me: The highest table, what does it mean?

Sumaira: Mean high levels like miss you know my level is 4b in maths and its really good mean I am very bright (*Interview taken from pupil from the high ability group in the first phase on 13/12/13 at 2:00*)

The girl from the high ability group (extract 02) considered herself "bright" which was a reason behind her placement in high ability group. She mentioned that her high attaining levels (i.e. 4b) meant that she was grouped in the highest group of the class. Similarly, the boy from the average ability group (extract 01) mentioned his second highest attaining levels (i.e. 3b) to be grouped in the average ability group.

Pupils from the low ability group did not seem to express their groups' placements based on assessed academic performance, as stated by a pupil from the low ability group:

Danial: yes, yes I am in purple

Me: why is it called purple?

Danial: because, because the tables and then the colour and miss put some people on each table so you got colour for your table

(Interview taken from pupil from the low ability group in the first phase on 11/12/13 at 02: 45)

The participant appeared to regard his placement in the low ability group as the decision or strategy of his class teacher. Similarly, another pupil from the same (low) ability group linked the group's composition with the behaviour management of pupils, and shared:

Me: do you know why your tables are called blue and purple?

Saira: yeah

Me: why?

Saira: because.... you sort groups out with good people and bad people...good the people they are really good behaviour and then they put them together and good people sit on other table and then bad people on another

(Interview taken from pupil from the low ability group in the first phase on 17/12/13 at 2:00)

The participant considered that the pupils in her classroom were placed in different groups according to their good and bad behaviours. She was perhaps talking about the behaviour management schemes through which pupils are given rewards for good performance and attitudes (see Chapter 4, Section 4.2) throughout the school.

6.4 Pupils' experiences of interacting and working with others in different groups

Pupils' responses of interacting with others were categorised as their experiences of sharing ideas, individual work and ambitions to work with friends. Pupils reported the following perspectives:

6.4.1 Sharing of ideas

The sharing of ideas is defined as talking and discussing the given task or activity while working as a group (Mercer, 2013). The interview data showed that pupils from average and high ability groups acknowledged sharing ideas on the given tasks in fixed ability groups. However, their perspectives about sharing ideas in mixed ability groups appeared different. The pupils preferred to be involved in discussion with their peers in fixed ability groups, but did not want to be involved with talking in mixed ability groups. Moreover, pupils from the low ability group did not acknowledge the sharing of ideas in any groups. They described classroom based group activities as something in which they could interact and work with others in groups independently, as elaborated in the following subsections:

6.4.1.1 Sharing of ideas in fixed ability groups

Pupils' experiences of sharing ideas in fixed ability groups appeared varied from one ability group to another. The pupils from the high and average ability groups mentioned that they share ideas and talk about the given task, while reflecting on their experiences of working in fixed ability groups, such as:

[Extract #01]

Me: What do you do in your groups?

Ahsan: Talk and share ideas

Me: Talk about what?

Ahsan: About things we are learning

(Interview taken from pupil from the average ability group in the first phase on 12/12/13 at 2:30)

[Extract# 02]

Me: What do you do in your groups?

Isma: Miss, we work on questions that miss gave it to us
..... Sometimes we tell each other like me and [Huma]

(Interview taken from pupil from the average ability group in the first phase on 11/12/13 at 2:00)

[Extract# 03]

Me: do you discuss with others in your group?

Rafique: only if I'm stuck like if I am stuck I ask my neighbour first then I asked all the table if they say I don't know then I will ask the person across the table *(Interview*

taken from pupil from the high ability group in the first phase on 6/12/13 at 2:45)

Pupils mentioned their experiences of solving tasks (extract 02) and clarifying difficult concepts of the lesson (extract 03) through talk and discussion with their peers. They evidenced their experience of accepting help from their peers during their group work in fixed ability groups. Compared to them, the pupils from the low ability group did not mention their experience of talking or sharing ideas with their peers in their fixed ability group:

Farkhanda: no ... it's right working with an adult if you need help so.... if you are on different table and you are struggling ... so that means that you need an adultYou have to work independently. Yeah but if you are on low table it is good because there is an adult helping you ... yeah

Me: So as you said if you are struggling and you need some help do you ask others at your table to help you

Farkhanda: yeah... you can. ... [Breath] neighbours [they] can help you... [Silent] if you [are] stuck in a question but only sometimes they could help you so it's better to have an adult with you. *(Interview taken from pupil from the low ability group in the second phase on 12/05/14 at 2:30)*

The participant above mentioned the support teacher who worked with the low ability group. She considered her support teacher as a sharing buddy to talk to or share ideas and to clarify task-related questions in their group.

6.4.1.2 Sharing of ideas in mixed ability groups

The data showed that pupils reported mainly negative experiences of sharing ideas in mixed ability groups. They appeared to differentiate their peers based on their assessed academic levels and changed their views from positive to negative while talking about their peers from high and low ability groups. Pupils' awareness about the ability-based differentiation appeared to influence their choices of sharing or not sharing ideas during their work in mixed ability groups.

The pupils from the high ability group acknowledged participating in task-related discussions in mixed ability groups. Nevertheless, they reported negative experiences

while reflecting on their experiences of working with peers from low ability groups, as they expressed:

“Sumaira: Sometimes.... mmmm like one.... somebody we don’t know and we gave the person job but things are left out and we get in trouble or someone on the table start fighting about something” (*Interview taken from pupil from the high ability group in the first phase on 13/12/13*)

This participant summarised her experiences of working in mixed ability groups. She reported that the poor contributions from her peers meant they could not finish the given task. In a similar fashion, another boy from a high ability group said:

Me: do you enjoy table work?

Rafique: yeah

Me: anything you dislike about your table?

Rafique: some of them are bit moody ... they are too moody like the partner will sit to him like in my normal seats they just start like be with me and like you can’t be with someone else something (*Interview taken from pupil from the high ability group in the second phase on 12/05/14*)

This participant appeared to complain about his peers who fought over seating places which hampered any successful interaction among them to work as a group in his mixed ability group.

Pupils from the average ability group also acknowledged sharing and discussing the given task in mixed ability groups. However, they differentiated in terms of which peers it was worth sharing and discussing ideas with, such as:

Isma: Like sometimes when Miss she puts us with Suleiman and Rafi table. They know more and they know how to do difficult things so yes we learn with them practically obviously. Like if someone who know their time tables like Rokeeb or Safwan know more timetables I know a few of them so they can teach me which I don’t know

Me: Is it still helping when you are grouped with someone who does not know much?

Isma: Yeah....[silent] well my numeracy group we always help each other we don’t argue over the answers cause

[because] sometimes I might say right I will have a go and
Usman might say I will go so

Me: And what about your normal table

Isma: Hhhhhh [reluctance in voice]

Me: Come on you can trust me

Isma: Ooooooooooooo [making some voices] It depends
miss... sometimes other people don't listen you they talk
about other things and don't let you to do work. So sometimes
it's annoying

Me: How. Can you recall any example?

Isma: When people don't let you to do work especially normal
tables like Fatima miss as you know I don't want her in my
group as she is messy and you know miss once I
worked with Sonam in ICT. She deleted something which was
important in slides. Thank God ... I saved two copies of
presentation otherwise we need another one. so
if they don't know what to do then it is not good for all
*(Interview taken from pupil from the average ability group
in the second phase on 19/05/14)*

The participant summarized her experiences of working with her peers in mixed ability groups. She seemed to express positive views about her group work with pupils from the high ability groups. She considered it as a way of learning and taking help from them. However, she appeared to express negative views about working with pupils from the low ability group. She considered them less capable of participating in the group's discussions.

Pupils from the low ability group reported their experiences of working in mixed ability groups negatively, as shared by a pupil from the low ability group:

Me: And if you need any help what will you do?

Danial: Mr John [support teacher] or Miss Perini [class teacher]

Me: Okay, will you ask anyone else mean other children when
Mr John will not be there? [I meant here mixed ability table]

Danial: No

Me: Fine, can you please tell me why?

Danial: Because they say go away. They don't let me do anything.

(Interview taken from pupil from the low ability group in the first phase on 11/12/13)

The pupil complained that his peers did not help him or involve him in the group's talk or work. Therefore, he reported being left out and did not want to participate in group work in the mixed ability groups. In this regard, another pupil from the low ability shared:

Saira: "He tells me a bit but I ask teacher cause [because] Rafi is not a teacher" *(Interview taken from pupil from the low ability group in the first phase on 17/12/13)*

The participant did not appear to view her peers as helpful or able to guide or help her in the mixed ability group. She mentioned that the support teacher was a helpful person to get help from.

6.4.2 Involving individual work

Individual learning is a form of learning in which pupils engage in their individual work. They do not consider themselves as interdependent or linked together to work as a group to achieve a common goal (Gillies and Khan, 2009). During my field work, I observed that pupils sometimes appeared to work individually, despite sitting in groups (see Chapter 5, Section 5.4). The class teacher also acknowledged that most of the time pupils' attitudes stopped them from working together as a group, even when they were given a shared task to work on collaboratively. I explored the pupils' reflections on engaging in individual work despite working in groups. Their responses showed that they seemed to prioritise individualism and competition, such as:

This particular pupil reported individual work as a focused and concentrated way to learn a specific activity as seen in the extracts:

Isma: I need some time to concentrate and think about work so I can do it easily when I am alone

Me: So why can't you do it as a group?

Isma: Cause [because] you know people ask about things and then you can't work

Me: How do you feel when you work alone?

Isma: I feel happy as I'm finishing off my work so
yes..... I like it (*Interview taken from pupil from the
average ability group in the first phase on 11/12/13*)

The participant preferred individual work as she did not want to be distracted by participating in the group discussion with her peers. She appeared to concentrate on her individual success and desired to complete her own task individually without interacting with others.

Sometimes, the pupils from the high ability group worried that their peers from the average and low ability group would copy their work, therefore they worked individually, as explained by another participant:

Sumaira: Basically miss people mostly distract me in science

Me: Who are they?

Sumaira: Miss, sometimesIt's.... [Silent pause] most of
the boys

Me: How do they distract you?

Sumaira: I try to do something they just oh we did that... We
did that. They always copy me right and I shout at them. I
know you don't need to shout you can stop them calmly or
simple you just tell them you shut up (*Interview taken from
pupil from the high ability group in the second phase on
12/05/ 2014*)

The participant mentioned her peers copying as a reason for focusing on her individual work. She narrated different strategies that she adopted to avoid disruptions created by her peers when working in mixed ability groups. She also reported the lack of coordination among the group's members, which motivated them to adopt individual work, as she said:

Sumaira: Sometimes I like individual work

Me: Why do you like it sometimes?

Sumaira: Miss, when Miss make you work at other tables
...they don't just work together. sometimes you fall out
because the person speak different or the person speak
something different from you that's why you don't get your
work done and you get into trouble

Me: Why do you think that they don't work together?

Sumaira: They don't listen to others and ignore... I just keep doing everything by myself' (*Interview taken from pupil from the high ability group in the second phase on 12/05/2014*)

The participant reported unsuccessful and poor coordination among her peers which negatively affected the success of mutual work in mixed ability groups. The lack of coordination among pupils in the mixed ability group was also reported by the pupils from the low ability group. In the extract below, the participant mentioned disagreements among her peers which discouraged all group members from coordinating their ideas to perform the task as a whole group.

Saira: Yeah, 'cause [because] other people come and they have these ideas and then you have to use everybody ideas then I like sharing but sometimes I think other people ideas are not really good

Me: Why do you think so?

Saira: I don't like it. [Thinking pause] I like working by my own (*Interview taken from pupil from the low ability group in the first phase on 17/12/13*)

In terms of working individually, pupils from the low ability group reported discriminatory interactions with their peers from the average and high ability groups, such as:

Me: So do you like to work with partners? As you do work in pairs in your class

Danial: Sometimes yeah, [silent pause] Mr Johnson just gave us partners

Me: So do you like your partner and enjoy working with them?

Danial: No

Me: Right, why?

Danial: They don't let me [to] do anything they just Its better working on your own than you are working with others

Me: Okay so these are the people from your table?

Danial: No... green table (*Interview taken from pupil from the low ability group in the first phase on 11/12/13*)

The participant mentioned the inequalities that he faced by not getting the chance to participate in group work.

The lack of coordination and cooperation among pupils was also reported by the class teacher:

Class teacher: Main challenge is to get them to focus on task when they work as a group because when they talk they sometimes take it too far and you know it ends up in arguments (*Interview taken from class teacher in the first phase on 17/12/13 at 3:30*)

Similarly, while reflecting on the conditions of group work among her pupils, she stated:

“You know group work is something I want to try on that because they don’t... they always like in teams and sports ... They just... throw each other. There are some nice activities which I want to do which means they need to work as two or three as a group. For example, if I have an experiment so I have to make them to work as a group I think they just need training” (*Interview taken from the class teacher in the first phase on 17/12/13 at 3:30*)

The class teacher exemplified a few aspects of disagreements and discrimination among pupils that she noticed in PE (Physical Education) and in some other lessons. She admitted that pupils failed to build any coordination to work as a group and regarded it as a barrier for organising interactive group work in her class. She also desired to improve the poor group’s skills of her pupils. Further in her second interview, she mentioned competition among pupils due which they did not like working with others, such as:

They don’t like each other (laughing tone) very much in general. There is kind of competition among them. There is always someone trying to be the leader. They don’t like the idea that someone takes credit for doing something (*Interview of the class teacher recorded in the second phase on 7/7/14 at 3:30*)

The class teacher reflected on the group skills among her pupils and shared that pupils tried to lead their peers and competed with one another in completing tasks earlier. In her view, pupils did not feel happy for others if they finished their work earlier than them by concentrating on their own individual work.

6.4.3 Working with friends

Pupils from all of the ability groups expressed that they enjoyed their group work with friends. They reported gender based friendships with their same-sex peers and desired to work with them collaboratively. Gender segregated friendship among pupils was reported as part of their overall physical and cognitive development, both by the pupils and their class teacher, and was considered as a normal developmental process. However, pupils also seemed to regard gender division as being part of what they were taught at home, mentioning home cultures in which separation between males and females is tolerated for various cultural and religious reasons.

The participants from all ability groups mentioned their friends as a major positive aspect of group work as seen in these extracts:

[Extract 01]

“Rafique: Literacy I do like that because I got my friend there”

(Interview taken from pupil from the high ability group in the first phase on 6/12/13)

[Extract 02]

Me: So do you like to work with different people

Ahsan: Yes, because some of them are my friends *(Interview taken from pupil from the average ability group in the first phase on 11/12/13)*

[Extract 03]

Me: So you don't like to work with others?

Saira: Yes, I like that but I like to work only with Kim

Me: So you like to work alone, not with other people but only with Kim

Saira: Yeah

Me: Why?

Saira: 'Cause she is my friend and we are friends since year three when I just came to the school (*Interview taken from pupil from the low ability group in the first phase on 17/12/13*)

The participants preferred to work with their friends in all of the above stated extracts. Particularly in extract (03), the participant mentioned working with her friends as her only choice of participating in group work. Another girl from the same classroom acknowledged working with their friends as their joyful learning experience, as shared by a participant in the extract below:

Khuda: I think that literacy tables are the best cause we are all together. We get along with friends ...though we mess about but the thing is, we get our work done like other people (*Interview taken from pupil from the average ability group in the second phase on 12/05/2014*)

The participant expressed her excitement of working with friends (other girls) in her average ability group. She admitted participating in irrelevant chat or talk. However, she also admitted finishing the assigned task in time.

Pupils appeared to possess gender biased perceptions for working with same-sex friends only. For instance, a girl from the high ability group only mentioned the names of other girls from her class and said she preferred to work with them, as she said:

Me: So do you like to work with your friends?

Sumaira: Yes, like Huma, Khuda, Isma and Kim. I like to work with all my friends but if you had to choose I will say Huma, Khuda (*Interview taken from pupil from the high ability group in the second phase on 19/05/2014*)

The participant only named only, stating that they were her close friends who she would happily work with in a group.

Pupils reported differences in their distinctive natural instincts which enabled them to make same-sex friends in the particular classroom, as shared by a pupil:

Isma: Yes Miss they always talk about football, Chelsea, Premier and so Then I don't like to work with them ...

I like girls like all girls Khuda, you know miss..... Saira and Fari they are all my friends. *(Interview taken from pupils from the average ability group in the first phase on 11/12/13 at 2:30)*

This particular girl did not want to work with boys due to having different play styles and preferences. She complained about boys and their discussions on sports and different football teams, which were completely different from her own favourite games and interests.

Similarly, the boys complained about the girls in that they were noisy and talkative and therefore they did not like to work with girls, as shared by a boy below:

Rafique: For literacy I do like that [table] because I got my friend on there and then there are two more girls then they just start like mess around and say give them the answer”

(Interview taken from a pupil from the high ability group in the first phase on 6/12/13 at 2:45)

The boy preferred to work with his same-sex peers and complained about the girls for being talkative and noisy during their group work.

In above examples, the pupils preferred same-sex partnerships due to their shared gender-biased stereotyped attitudes, interests and personality traits (Mehta and Strough 2009). The class teacher considered this gender division among her pupils as a matter of their age and typical development. She reflected on the gender biased interactions among her pupils, and shared:

Class teacher: As far as I am concerned it happens everywhere, I mean I mean all kids especially in this age.

(Interview taken from the class teacher in the second phase on 7/7/14 at 3:30)

The class teacher also considered it a part of the pupils’ typical physical and social development. However, she also considered gender segregation in her classroom as an influence of pupils’ socio-cultural backgrounds in her interview later on, as she said:

But I do think to some extent not a large one I think its parental influence and their faith as well parents say no they can’t.... work with boys ...play with boys so they don’t so sometimes

that's the comment that gets passed by the girls when they have been asked to work with boys or do something with boys. They just say that I am not allowed to play with boys
(Interview taken from the class teacher in the second phase on 7/7/14 at 3:30)

The class teacher considered that pupils seemed to be influenced by their parents and their faith when choosing same sex peers for working in groups in her class. When I probed her more about the role of parents in influencing her teaching practices in her classroom, she admitted that pupils' parents did not directly interfere in her teaching plans:

Me: So do the parents themselves ask you something about gender divide?

Class Teacher: No, they don't speak to me about it. Pupils say their parents said that they can't work with a boy ... it's very rare that the parents come and say anything about working in the classroom *(Interview taken from the class teacher taken on 7/7/2014 at 3:30)*

She mentioned that the parents did not directly communicate with her to group their children in same-sex groups. However, they asked their children at home and then the children passed on such messages to her. The role of pupils' home backgrounds in developing gender division among pupils can be traced for the following statement of a pupil too:

Isma: I like to work with the [boys] only as they are my cousins *(Interview taken from pupil from the average ability group on 11/12/13 at 2:30)*

I probed the particular girl about her choice of making friends or working with other sex peers. She mentioned her cousins and brothers with whom she would prefer to work with. She seemed to represent the influences of her ethnic minority by choosing only her brother and cousin to work with in groups.

6.5 Group work and how I want to interact with others?

The data suggested that pupils from all ability groups expressed different desires to improve their experiences of interacting with others during their group work. Their responses were more or less influenced by their classroom experiences.

A pupil from a high ability group expressed below:

Me: Do you enjoy group discussion

Rafique: Yeah! I get to know the people and I know like
....what yeah.... I know who they arelike to help them

Me: What do you expect from them?

Rafique: They should be listening because they [Silent]
should be useful that I am helping them they didn't have me
or anyone teacher. They will be stuck. (*Interview taken from
pupil from the high ability group in the first phase on
6/12/14*)

The pupil mentioned the group work that he participated in. He regarded it as a way of knowing others (classmates) but expected his group's members to listen to one another during their group discussions. Similarly, another pupil from the average ability group regarded group work as a way of working with different people. However, she expected her group's members to exhibit good manners, and stated:

“Isma: Mmm, I like to work with different people as you know
about different people but if they are behaved not naughty

Me: Naughty

Isma: Yes Miss You know sometimes they don't
let you do work, that's why like sometimes boys they talk
about other things not work” (*Interview taken from pupil
from the average ability group in the first phase on 11/12/13
at 2:00*)

This girl expressed her willingness to work with different people, however, she expected good and cooperative behaviours from her peers. She reported boys as non-cooperative members and complained about their irrelevant discussions. She therefore expected them to coordinate well as a group.

Pupils from the low ability group seemed to desire to work independently or in average and high ability groups when they were asked about their group work improvement, such as:

Me: OK, so anything you don't like about group work?

Farkhanda: Sometimes I ask the teacher and get piece of paper
.... I ask the teacher so I can do it by myself but sometimes

they might say no you have to work with group and keep trying

Me: So what you don't like about group then?

Farkhanda: Because I ask the teachers that can I do myself but sometimes she saysno

Me: Why do you want to do your work alone?

Farkhanda: Because I know what I have to do

Me: It means if you know what you have to do then you don't need to work with someone?

Farkhanda: yes (*Interview taken from pupil from the low ability group in the second phase on 12/05/14*)

The pupil wished to be independent in her group work. She appeared to be confident by talking about her skills and desired to be involved in independent work. Another participant from the low ability group seemed to want to work in high and average ability groups of the class, as she mentioned below:

“Because when we do maths we got... we have to do something else I want to try what [name of class teacher] tells us but [name of the support teacher] say that we have to go with him but I really want to do what miss [name] teaches. They [rest groups of the class] do different work with miss [name] and me, Lubnaa, Farkahnda and Saira and Danial we do what Mr Joney tells us sometimes we have to go to the ICT we sometimes do in the class as well” (*Interview taken from pupil from the low ability group in the second phase in May, 2014*)

The pupils from the low ability group wished to work in other groups of the class, not only in the low ability group. She mentioned her low ability group in which she had to work with the support teacher on tasks different from those given to the average and high ability groups.

The above mentioned pupils' responses showed that the classroom based group organisation seemed to influence their aspirations to improve their experience of interacting with peers. Pupils in both the high and average ability groups were given independent learning tasks to complete in groups by their class teacher. As a result, they reflected on their experiences of working in groups and desired to improve the

conditions of their group work. On the other hand, pupils in the low ability groups were not given much opportunity to participate in group work independently. They worked on the same task, depending on their individual progress plans, under the guidance of the support teacher. Therefore, they did not mention their peers or how to improve their group work. They appeared to complain about often negative and limited experiences of interacting and working with others in groups.

6.5.1 Classroom intervention to accommodate pupils' desires

Pupils from the high and average ability groups mentioned the general social behaviours of their groups' fellows. They desired for them to be involved in active and respectful listening and to coordinate as a whole group to work together properly. Active listening and good coordination are enlisted as the social skills of engaging successful group work (Gillies, 2003), which, as reported above (see Chapter 6, Section 6.4.2), were sometimes lacking among pupils. In the above examples, pupils reported the same behavioural problems and desired to improve those to have a successful interaction with their peers. The class teacher was given an activity (see Appendix 01A) to train pupils about these social and communicative skills. She was requested to organize a few discussions aimed at reminding the pupils of various group based social and communicative skills. I proposed a couple of titles, such as "good friend recipe, developing group rules and sharing buddies" (see Appendix 01A) which might enable pupils to refresh their knowledge about interacting and working with others effectively. The class teacher agreed to implement those discussions in the PSHCE lessons for a few weeks at the beginning of the second phase of data collection (see Chapter 3, Section 3.5.4). However, when the time arrived she apologised for not organising the proposed discussions. She mentioned her lesson planning for that particular half term in which she was lacking a space for PSCHE lessons any more. Due to the lack of time, she had to follow the pre-planned lesson timetable, instead of trying to meet the above-mentioned desires of her pupils.

6.6 Synthesis from the interview data

Pupils' responses recorded during their interview to explore their perceptions of interacting and working with others in group work indicated that:

- Pupils from high, average and low ability groups responded differently to describe their groups' positions and to describe their experiences and aspirations of working in groups.

- Pupils were influenced by the classroom based group organisation and teaching practices to regard their group-based experiences as positive or negative.
- Pupils were also influenced by their home environments to regard their certain (same sex) peers as cooperative and other sex peers as non-cooperative peers to interact and work with others.
- The pupils from high, average and low ability groups expressed different aspirations based on the challenges they faced in the classroom to improve their experiences of interacting and working with others.

6.7 Summary of the chapter

This chapter has summarised the nature of pupils' perceptions about their routinely organized group work, in order to explain the second and third questions of the study. The aforementioned pupils' responses indicated that the various contextual factors, including classroom organisation, lesson and group structure, teaching strategies, peer pressure and socio-cultural backgrounds influence pupils to regard group work as productive or non-productive. The influences of these various contextual influences are discussed in the next chapter.

CHAPTER 7: DISCUSSION, CONCLUSIONS AND IMPLICATIONS OF THE STUDY

7.1 Introduction

This chapter aims to interpret the main findings in the discussion section, draw conclusions and make recommendations of the study.

Section 7.2 discusses the findings of both observational and interview data. The first and second subsection discusses the nature of pupils' interactions and their perceptions of routinely organized group work in the observed classroom. The third subsection discusses the role of qualitative research in researching pupils' interactions.

Section 7.3 draws conclusions on the nature of pupils' interactions and their perceptions of classroom-based group work.

Section 7.4 explains the implications and recommendations of the study. The first, second and third subsections explain implications for theory, policy, practice and future research on pupils' interactions and their perceptions of group work respectively.

Section 7.5 reflects on the limitations of my research.

7.2 Discussion on the nature of pupils' interactions and their perceptions of group work

My research aimed to explore the following questions:

1. What is the nature of pupils' interactions during their routinely organized group work under ability based and other group structures in a primary classroom?
 - 1.1 Does the nature of social interaction among pupils change and transform from one grouping structure to another, and if so why?
2. What do primary school pupils think about their group work?
3. What is the role of organisational, social, and other cultural factors in influencing pupils' interactions and their perceptions of group work?

The previously described findings have shown (see Chapters 5 and 6) that the pupils adopted dynamic interactions towards their peers. They used talk to discuss their lessons. They showed cooperative and non-cooperative attitudes towards their peers during their routinely organized group work. Both the observational and interview

data also identified various individual, organisational and socio-cultural contextual factors that exist in the context of the pupils which influenced their interactions and perceptions of classroom-based group work. Thus, what pupils did and thought about their group work in the observed classroom was as a result of the relationships between pupils' school and home contexts. Pupils' interactions and their perceptions were seen as reactions to environmental influences coming from their classroom, home, communities and interpretations of the national educational policy.

In the following sub-sections, I discuss these findings in light of the ecological theory of Bronfenbrenner. I use the ecological complexity theory (Bronfenbrenner, 2005b) to explain the relationships between pupils' school and home contexts which influences pupils' interactions during their group work (see Chapter 2, Section 2.8.2). I explain how pupils' context (i.e., the classroom, school and their socio-cultural backgrounds) develop connections with one another to influence them to shape and transform their interactions and perceptions about group work.

The first *sub-section 7.2.1* discusses the nature of pupils' interactions during their group work.

The second *sub-section 7.2.2* discusses the nature of pupils' perceptions of classroom based group work.

7.2.1 Discussion on the nature of pupils' interactions

I categorised the dynamic aspects of pupils' interactions into four broad categories of "talk among pupils, cooperative and non-cooperative interactions and gender differences among pupils" (see Chapter 5, Section 5.1). Pupils used on and off- task talk with their peers. They showed cooperative and non-cooperative interactions towards their peers. The pupils also showed gender biased interactions while cooperating with their same-sex peers in preference to other-sex peers during their group work. The observational data showed the important influences of classroom context and relational factors on pupils' interactions:

Classroom context and pupils' interactions: Pupils' interactions were dependent on the classroom context. Pupils with equal and diverse attainment levels participated in task-related discussions (see Chapter 5, Section 5.2.1), and thus fulfilled the theoretical assumptions proposed in the before-mentioned theories of social interactions (see Chapter 2, Section 2.3). However, the class and support teachers played an important role in making pupils' talk productive or unproductive, which

highlighted the role of the teaching instructions in affecting pupils' interactions during their group work. The classroom context also influenced pupils to adopt cooperative and non-cooperative interactions through grouping pupils under certain grouping structures which influenced them to appear as helpful or unhelpful peers for others (see Chapter 5, Sections 5.3.1 and 5.4.1.1).

Relational factors and pupils' interactions: Pupils' interactions were influenced by relational factors which include social relationships (see Chapter 5, Sections 5.3.1.2 and 5.3.1.3), and gender based differences among pupils (see Chapter 5, Section 5.5). The observational data showed that pupils formed friendship relations and exhibited gender biased interactions to be cooperative or non-cooperative towards their peers.

In this section, by reflecting on these findings, I explain the role of the internal and external contextual factors that influence pupils to engage in productive or non-productive conversations, and to adopt cooperative or non-cooperative interactions towards their peers, such as:

7.2.1.1 Classroom context and pupils' interactions

The classroom context in forms of ability based differentiated teaching and group organisation influenced pupils in different ways. As a result, the pupils occasionally appeared to work with peers, but sometimes worked individually without interacting with their peers during their group work, as explained in the following Section

i Teaching approach and pupils' interactions

I observed that pupils used talk for explaining and discussing the given task with their peers in their routinely organized fixed and mixed ability groups. The class teacher played an important role in making pupils' talk productive through her interventions. Nevertheless, her interventions also sometimes hampered the frequency of pupils' discussions in fixed ability groups, which highlighted the role of the teaching approach in making pupils' talk productive or non-productive for group work.

Pupils spoke relevantly about the given task while working (Barnes, 2010) in ability based (fixed and mixed) groups (see Chapter 5, Section 5.2.1) thus fulfilling the theoretical expectations of both Piaget and Vygotsky. In the fixed ability group, the mutual conversation among pupils motivated them to coordinate their ideas (Whitbread and Grau, 2012, p.401). It generated a social context for their learning known as 'preconditions for the cognitive development' in Piagetian theory (Howe et al., 2007). For example, pupils equally discussed the given mathematical division

while working in the fixed ability group (see Chapter 5, Section 5.2.1.1). They developed links between the new and previously learned information (O'Donnell and Shuayb, 2010) regarded as a process of assimilation and accommodation in the Piagetian model of cognitive development (see Chapter 2, Section 2.3.1). Similarly, pupils' mutual discussion enabled them to resolve the contradictions between their own and other perspectives (Webb et al., 2009) as advocated in Vygotsky's theory while working in mixed ability groups. One pair (see Chapter 5, Section 5.2.1.2) used language to discuss their knowledge about the given Science experiment. The partner from the average ability group performed the role of the expert and guided his partner belonging to a low ability group in the same class. The expert's help and guidance served as a zone of proximal development (Braund and Leigh, 2012) for the particular girl and enabled her to understand and conduct the experiment under the appropriate conditions. As a result of participating in conversational experience, the expert was also given the opportunity to rehearse his knowledge about the experiment, to clarify and strengthen his own understanding.

In terms of pupils' talk in groups, I identified that the theoretical underpinnings of peer interaction proposed in the theories of Piaget and Vygotsky appeared to be fulfilled in the particular classroom. In this case, the class teacher appeared to play a crucial role in making pupils' interactions productive for group work. For instance, in one example of mixed ability group work (see Chapter 5, Section 5.2.1.2) the intervention of the class teacher enriched task-related discussion among pupils. The class teacher elaborated upon the answer given by the girl and made it comprehensible for the particular boy. The evidence highlighted the importance of the class teachers in scaffolding pupils' talk to make it comprehensible for all members in heterogeneous groups (Slavin et al., 2009).

Similarly, the observations of pupils' talk led me to understand that teachers had to be careful (Gillies and Boyle, 2008) in how they intervened in pupils' talk during their group work. Their interventions should facilitate pupils' dialogues and conversations without undermining opportunities for them to engage in talk (Alexander, 2008a). For instance, in one example of low ability group work (see Chapter 5, Section 5.2.1.1), pupils were given fewer opportunities (Baines et al., 2009) to talk and interact with their peers. The support teacher prioritised the prescribed teaching plans and stopped them from discussing the WALT⁹ to get back to their individual writing. Therefore,

⁹ WALT : we are learning to

he did not mould his teaching content and approach (Winter, 2012) to encourage social interaction among pupils. The support teacher appeared to emphasize the transmission of the knowledge (Alexander, 2008b) by controlling pupils' talk to maintain the classroom's discipline. He was forced to undermine the social pedagogic potentials of the pupils' interactions (Blatchford, et al, 2003, p.156) as suggested in the theories of learning (see Chapter 2, Section 2.3) by not allowing pupils with low attaining levels to participate in peer interaction, despite sitting in a group.

The teaching approach applied in the observed classroom also influenced pupils to differentiate their peers to work with them or not, in groups (see Chapter 5, Section 5.4.2). Pupils were instructed and taught according to their ability-based differentiated learning levels in the particular classroom (see Chapter 4, Section 4.3). The class teacher enabled pupils to work on tasks differentiated according to their assessed academic performances (Hallam and Ireson, 2007). The pupils in high ability groups were given complex tasks, and pupils in average and low ability groups less complex tasks to complete. The observations showed that the pupils interpreted the allocation of the ability based group as an evidence for being clever or not. Pupils from the high ability group doubted the ability and contributions of their peers from other groups, particularly from the low ability group. Sometimes, they mistrusted their peers and accused them of copying their work, and therefore did not involve them in group work (see Chapter 5, Section 5.4.2). As a result, pupils did not create potential zones of development for themselves and for their peers in heterogeneous groups, which are considered as core aspects of learning through social interaction (Franke et al., 2015).

ii. Grouping structure and pupils' interactions

The observations showed that the nature of cooperative, competitive and individualistic group structure (Roseth et al., 2008) influenced pupils to become cooperative or non-cooperative towards their peers during their group work (see Chapter 5, Sections 5.3 & 5.4). The pupils adopted positive social behaviours and interacted cooperatively towards their peers, when they were given a formal cooperative learning place by the class teacher to work together (Gillies, 2014). They adopted non-cooperative interactions towards their peers, when they assumed that they were given individual tasks and therefore were not expected by their class teacher to work as a group.

The cooperative group structure created positive social interdependence among pupils in all either ability based or other forms of group work. Pupils were allocated shared tasks which interlinked them together as a group. In case of fixed ability group work, pupils' categorisations as "low ability" generated an identity based interdependence (Johnson and Johnson, 2002. P. 99) among them. As a result, they worked together as a group to complete the curriculum units and offered both general and academic help to their peers (see Chapter 5, Section 5.3.1.1). Pupils were given equal treatment with the opportunity to learn the given activity under the same teaching structure (Yarker, 2011). They were aware that they were supposed to work together under the guidance of a support teacher, therefore they cooperated and took responsibility for one another's learning. Similarly, pupils interacted with their peers positively in the mixed ability group due to working under a shared and cooperative group structure (see Chapter 5, Section 5.3.1.2). The group members remained positive by offering help to their peers to conduct a Science experiment.

Pupils showed non-cooperative interactions when they were given individual tasks and they assumed that they were expected to work individually. The allocation of individual task and group structure created competition (Roseth et al., 2008) among pupils. As a result, they attempted to take the lead from their peers (see Chapter 5, Section 5.4.1.1) in fixed ability groups. They perceived themselves as independent and not interlinked with one another. Their preference to work as individuals not as a group generated negative interdependency or no dependency (Johnson and Johnson, 2008, p.229) with their peers despite, working in groups. The pupils concentrated on their individual work, therefore, they refused to seek help from their peers which reduced the possibilities for them to interact with one another.

The above discussed examples indicated that the level of cooperation among pupils was not entirely dependent on the pupils themselves. The classroom context played an important role in influencing and transforming their interactions as cooperative or non-cooperative. The classroom based strategies could provide a context for pupils in the forms of shared tasks, teaching instructions and group structure to generate interaction and cooperation during their group work. On the other hand, they could generate individualisation, competition and mistrust among pupils when grouping them in individualistic and competitive grouping structures, and without interlinking them with shared or common goals (Gillies and Khan, 2009) to work cooperatively as a group.

The tensions of competition and mistrust raised by the immediate classroom context are considered resolvable in the contemporary literature (Gillis, 2014, Bines, et al, 2009, Tolmie, et al, 2010, and Webb, 2009). However, I discovered that the activities (Appendix 01a, b and c) applied in the particular classroom (see Chapter 5, Section 5.4.1.3) did not provide a satisfactory outcome in developing a supportive immediate context for group work. First of all, the period of running activities in the particular classroom was too short in terms of expecting to see any change in pupils' interactions. Additionally, some external factors in the forms of broader ability-based instructional pedagogy and the pressures on the class teacher to finish the pre-planned lesson, influenced pupils' interactions during their structured group work.

For instance, the observations showed that the pupils did not get on well with the idea of working with their peers collaboratively. They maintained their individualities and created competition despite working on the suggested group-based activities (Appendices 01A, 01B & 01C). Pupils highlighted their individual work with different colours to make it prominent while working on the discussion wheel activity that aimed to encourage pupils to mutually discuss the task in their groups. They also resisted the ideas of sharing their work (see Chapter 5, Section 5.4.2.3) with one another while reflecting on their experiences of participating in a group-based activity (Appendix 01C).

The class teacher cooperated well with me by incorporating the suggested activities in her lessons. However, she perceived those activities as additional work rather than embedded in her routinely based teaching practice. The class teacher's reaction highlighted the absence of autonomy in her teaching practice (Shor, 1992). Her perceptions for running a few activities and getting back to real (normal) teaching evidenced that she did not want to take independent steps to resolve the problems associated with the competitive and non-cooperative interactions of her pupils (see Chapter 5, Section 5.4.1.3). She appeared to depend on ability-based differentiated teaching and could not maximise the effectiveness of group work and social interaction among pupils. The over dependence on ability-based differentiated teaching and group organisation seemed to narrow her teaching approaches (Alexander, 2012, p.371) by forcing her to ignore the theoretical fundamentals of group work. She concentrated on a prescribed teaching style (Maisuria, 2005, Conroy et al., 2010) and could not allow herself to adopt any pedagogy which might enrich social interaction among the pupils. Her emphasis upon meeting her professional

commitments to complete the agreed teaching plans appeared to undermine the importance of addressing problems relevant to pupils' interactions.

7.2.1.2 **Relational factors and pupils' interactions**

Relational factors, including the friendship and gender differences, were also among the influential factors affecting pupils' interactions as explained here:

i. Friendship and pupils' interactions

The observation showed that pupils cooperated with their friends during their group work. The presence of friends in a group setting gave both psychological and intellectual support. A study conducted on 11 and 12 year olds (Miell and MacDonald, 2000) revealed that the pupils were involved in cooperative interactions of sharing knowledge, challenging and evaluating ideas in friendly environments while working with their friends. The social relations of friendship can provide social and cognitive scaffolding (Galton et al., 2003) to pupils which they may not receive while working with other peers. Particularly, pupils from the high ability group can scaffold their friends from average and low ability groups in heterogeneous groups. For instance, in one example (see Chapter 5, Section 5.3.1.2), two girls cooperated with each other by solving a technical error through sharing gender and friendship relations with each other. They were involved in an individual task and were grouped under an individualistic structure (Johnson, 2002, p.98). They were not expected to interact to generate social interdependence between themselves. Nevertheless, they exhibited cooperation towards each other because of their friendship.

Similarly, in another example of pair work between two boys (see Chapter 5, Section 5.3.2), friendship played a vital role in generating cooperative interactions. The boys exhibited promotive interaction (Gillies, 2014) of appreciating and encouraging each other. They supported each other to complete their writing tasks by adopting positive and cooperative (Johnson, 2002, p.97) interactions during their Literacy lesson. However, they did not interact with the remaining group members because of a lack of rapport among them.

I also noticed that the friendship relations did not always help pupils to eliminate the competition and mistrust raised by their classroom context. Sometimes, the differences in pupils' academic abilities overcame their friendship and cooperation (see Chapter 5, Section 5.4.1.2), particularly in the mixed ability groups. The girl with high attaining levels prioritised her individual performance despite working on a

shared activity. Therefore, the cooperation among pupils due to sharing friendships remained situational. In some places, it contested with the influences of the classroom context, teaching approach and grouping structure, but in other places it did not.

ii. Gender differences and pupils' interactions

Gender was observed as an important relational factor which influenced pupils' interactions during their group work (see Chapter 5, Section 5.5). Both girls and boys preferred to work with same-sex peers only in the observed classroom.

The observations showed that the pupils often transformed their group work into pair work in order to work with same-sex peers in fixed ability groups (see Chapter 5, Section 5.5.1). They were supposed to work as a whole group to discuss the common task, however, the gender biased attitudes among peers affected their interdependency as a group and motivated them to talk or interact with same-sex peers only. Similarly, pupils preferred to work with same sex partners only in mixed ability groups (see Chapter 5, Section 5.5.2).

Gender segregation is defined as a separation of boys and girls in their friendship and social interactions (Strough and Covatto, 2002, p.346). This is expected to take place in almost all normative contexts, including classrooms and other social settings (Leszczynski and Strough, 2008). The participants that were observed in the classroom were 9 to 11 years old (see Chapter 3, Section 3.3.2). Their preferences to choose playmates with similar interests were at their peak (Mehta and Strough 2009). Therefore, the pupils chose same-sex peers for group or team work as part of their typical developmental characteristics, as reflected from their interactions outside of the classroom (see Chapter 5, Section 5.5).

Peer pressure was one of the main triggers for the pupils to adopt gender biased attitudes (Strough and Cavetto, 2002, p.347) and to interact with other sex peers negatively. For instance, the example of pupils' group work outside the classroom (see Chapter 5, Section 5.5.3) showed that the friends of a particular boy (Danial) persuaded him not to play with a girl assigned to him by the class teacher. The friends of Danial tried to influence him to choose a same-sex partner to participate fully in the physical activity. The role of pupils' parents and their home backgrounds was also reported as another important reason behind gender biased interactions among pupils, as explained further in Chapter 7 (see Chapter 7, Section 7.2.2.3).

7.2.1.3 Concluding comments on pupils' interactions

The observational data on pupils' interactions indicated that pupils adopted dynamic interactions towards their peers during their routinely organized group work. On some occasions they exhibited cooperative interactions, while on other occasions they appeared to be non-cooperative towards their peers. Pupils' interactions were influenced by their class teacher, the grouping structures and teaching instructions applied in the immediate setting of their classroom. Moreover, pupils' interactions were also influenced by their social relationships of friendship and gender differences.

Pupils participated in socio-cognitive conflicts (Powell and Kalina, 2009) and cooperative discussions while working in groups. However, the class and support teachers played an important role in making pupils' interactions productive, and too much intervention could demolish the productivity of pupils' discussions in the particular classroom. Similarly, the change in grouping structure could influence pupils to interact with peers either positively or negatively. Pupils behaved positively with their peers when working on shared tasks under cooperative groups' structures. They failed to develop positive social interdependencies, generated competition among themselves and their peers, and worked as individuals while working under competitive or individualistic group structures. Pupils also formed ability based identities for themselves and for their peers when working in ability based differentiated (i.e. high, average and low ability) groups. They differentiated their peers on the basis of their academic abilities and transformed their interactions accordingly in mixed ability groups. The pupils mistrusted their peers to share work, and did not trust their competencies by considering their placements in various ability groups. Consequently, they could not generate equality to positively interact with one another to accomplish the purpose of group work.

The role of the class teacher, group structure, ability based group allocation and teaching in affecting pupils' interactions led me to conclude that the particular classroom implemented group work in ways that seemed fail to support the requirements of effective pupil interaction. The pressure on the class teacher appeared to restrain her from adopting pedagogical approaches that favour the conditions for effective social interaction among pupils. The non-supportive effects of the classroom context influenced pupils to adopt non-cooperative interactions. Such influences are essential to take into account while researching social interactions among pupils, as has been explained further (see Chapter 7, Section 7.5).

Pupils formed friendship relations with their peers based on their gender identities and adopted cooperative attitudes towards same-sex peers, and non-cooperative attitudes towards other sex peers. The influences of relational factors such as friendship and gender differences among pupils appeared to affect their interactions in both positive and negative ways situationally. The gender division among pupils was reported as an influence of pupils' socio-cultural backgrounds which hint towards relationships that exist between pupils' immediate and wider contexts, as explained in the upcoming section.

7.2.2 Discussion on the nature of pupils' perceptions

The pupils' perceptions, like their interactions, were influenced by their classroom context, but pupils also reported the influences of their home environment which affected their perceptions of working with others. In Chapter 6, pupils' perceptions were categorised as "group organisation, group experiences and their aspirations to improve group work". In this section, I use the same categories of pupils' perceptions to discuss the role of the following contextual factors (i.e. classroom context and pupils' socio-cultural backgrounds) on influencing pupils' perceptions about group work, such as:

Classroom context and pupils' perceptions: The pupils possessed different opinions about group organisation and their experiences of working in various groups (see Chapter 6, Section 6.2). The classroom context including the group structure, teaching approach, the class teacher's expectations associated with a particular group influenced their views about group work (see Chapter 6, Sections 6.3, 6.4 and 6.5). Pupils' interpretations of the classroom context appeared to influence their decision on whether to work with peers as a group or as an individual, without interacting with others. This experience of exploring pupils' interpretations highlighted the importance of involving pupils in research to hear their perspectives about group work while researching pupils' interactions in primary classrooms.

Socio-cultural backgrounds and pupils' perceptions: The pupils reported gender differences as a strong feature to decide whether or not to work with peers during their group work. Gender differences were reported as an influence of pupils' socio-cultural background which affected pupils' willingness to work with same sex peers cooperatively (see Chapter 6, Section 6.4.3). Their socio-cultural backgrounds also influenced them to interpret success as linked with individualised endeavour (see

Chapter 7, Section 7.2.2.2) which negatively affected their capacity to work in groups. The influences of pupils' socio-cultural backgrounds on their interactions inside the classroom highlighted the importance of recognising the relationships that exist between pupils' educational and social lives, and how these may influence interactions inside the classroom.

7.2.2.1 Classroom context and pupils' perceptions

The influence of the classroom on pupils' perceptions is discussed in the following sub-sections:

i. Group organisation and pupils' perceptions

The interview data showed that the pupils were influenced by the classroom based group organisation in their description of the organisation/formation of their groups (see Chapter 6, Section 6.3). The pupils' perceptions about their experiences categorised as their various actions of sharing ideas, working on tasks as a group or as an individual and working with friends (see Chapter 6, Section 6.4).

Pupils' perceptions about the composition of their groups showed the influences of ability-based group organisation. The pupils were placed in specific ability groups matched with their distinctive academic learning levels. The class teacher used different colours to differentiate ability groups (see Chapter 4, Section 4.3) known as the red, yellow and green tables. She placed pupils on a specific coloured table and assigned them learning tasks according to their academic levels. As a result, the pupils mentioned the various colours to describe their groups rather than using the word "group" (see Chapter 6, Section 6.2).

Similarly, the ability-based group structure influenced how pupils described their groups' composition. The pupils admitted being aware of the attainment based classification applied in their classroom to group them and their peers in various ability groups (see Chapter 6, Section 6.3). The pupils from the average and high ability groups acknowledged that they were placed in those particular groups due to their high and average attainment levels. They also remained positive while sharing their groups' placements, and described themselves as "bright and smart". Their categorisation as "more able" might enable them to develop a high and positive self-image (Sukhnandan and Lee, 1998). Compared to them, the pupils from the low ability groups could not clearly explain their placement in that particular group.

The pupils also differentiated their peers as ‘good’ if they sat in the high and average ability groups, and ‘not so good’ if they sat in low ability groups (see Chapter 6, Section 6.4). The ability based group organisation appeared to influence pupils to associate their peers with their assessed academic performance during their group work. The pupils considered the particular ability groups (William and Bartholomew, 2004) and distinctive academic levels (Hallam and Ireson, 2007) of themselves and their peers. They did not consider their peers as individuals, but rather as members of a particular ability group to interact with them or not while working as a group. Therefore, they appeared to regard social interaction with peers as helpful or unhelpful according to their distinctive perceived high or low attainment levels (see Chapter 6, Section 6.4.1).

ii. Teaching approach and pupils’ perceptions

The pupils were given differentiated tasks according to their assessed attainment levels. The interview data showed that the allocation of tasks with differentiated difficulty levels influenced pupils to adopt positive and negative perceptions about their groups and group work. The allocation of differentiated tasks also appeared to affect pupils to form positive and negative aspirations to improve their group based learning experiences in the particular classroom.

The pupils from the high ability groups were reinforced through the allocation of complex learning tasks, which encouraged them to develop a positive self-image (Tomlinson, 2004). The positive treatment sensitised pupils to the importance of accomplishing higher academic levels. Consequently, the pupils associated their placements in the high ability group with their high academic capabilities. It also led to social division (Sukhnandan and Lee, 1998, p.38) as a result of forming discriminatory perceptions about peers from the low ability group. The interview data showed that the pupils from the high and average ability groups mistrusted their peers from the low ability group, and considered them unable to contribute effectively in group discussions, and they acknowledged sharing and discussing the given lesson or activity in their fixed ability groups (see Chapter 6, Section 6.4.1.1). The same was not true when working as a group in mixed ability groups. They complained about the disagreements expressed by their peers from the average or low ability groups (see Chapter 6, Section 6.4.1.2). Arguments about seating and complaints of being copied

were reported as the main disturbances which hindered helpful discussions in the mixed ability groups.

Similarly, the pupils from the low ability groups reported their experiences of working with their peers from the high and average ability groups as negative. They mentioned being left out by their peers as they did not help them or allow them to contribute to group discussions (see Chapter 6, Section 6.4.1.2) and mistrusted their academic contributions. The mistrusting of peers based on their allocation in a particular ability group was also evidenced in the observational data on pupils' interactions during their group work (see Chapter 5, Section 5.4.1.2).

Pupils in low ability groups were expected to perform less well by the class teacher (Yarker, 2013). They appeared to be dependent on the support teacher to carry out their work, as stated above (see Chapter 7, Section 7.2.1.1). Consequently, their allocation to a low ability group and dependency on the class or support teacher appeared to influence these pupils' thinking negatively (Hart and Drummond, 2014). They did not mention their academic performance clearly and regarded it as a decision of their class teacher. In contrast to pupils from the high ability groups, these pupils did not share any ambitions about themselves or their academic careers (see Chapter 6, Section 6.3) perhaps influenced by the low expectations of their group in the particular classroom.

The differentiated ability-based teaching proved academically beneficial for pupils from high or average ability groups (Yarker, 2011). They were given complex learning tasks to complete independently while working with their peers. They acknowledged using task-related discussions in fixed ability groups (see Chapter 6, Section 6.4.1.1). The pupils from the average ability group even shared their experiences of accepting help from their peers from the high ability groups in the mixed ability groups (see Chapter 6, Section 6.4.1.2). The pupils acknowledged participating in task-related discussions (Mercer, 2013) and cognitive apprenticeship (Pritchard and Wollard, 2010, p.56) to clarify their confusions by seeking help from their peers. However, the pupils in the low ability group did not appear to take part in group work. They did not accept their peers as experts to ask for help, instead turning to the class or support teacher as their sharing buddies (see Chapter 6, Section 6.4.1.2). Their categorisation as "low ability" (Hart and Drummond, 2014) appeared to make them a separate strand in the same classroom (Sukhnandan and Lee, 1998).

The pupils from the high, average and low ability groups expressed different perspectives on how to improve their interactions with others during their group work (see Chapter 6, Section 6.5). Their responses reflected the inequalities that they encountered in the classroom due to working in attainment based distinctive groups. The pupils from the high and average ability groups reported the absence of communicative and social skills among their peers, and expected them to demonstrate self and social regulation (Boekaerts and Corno, 2005). They invited their peers to become involved in the collaborative learning environments (Franke et al., 2015) by demonstrating active listening, helping or getting help from one another. They desired that their peers should demonstrate group coordination (Gillies, 2006) by regulating their activities as a whole group. On the other hand, the pupils from the low ability groups were not encouraged to participate in group work independently. Consequently, they did not mention having any expectations regarding listening to and cooperating with their peers as a group. They desired to talk and to discuss their lessons independently without the over-intervention of their support teachers. They expressed their desires to participate in group work independently which they could not and therefore, expressed dissatisfaction (Blatchford et al., 2006) towards the teaching practices they experienced in the classroom.

The class teacher could not accommodate the pupils' desires to improve their interactions and group work because of the time constraints (Alexander, 2012). For instance, the pupils from high and average ability groups reported behavioural concerns as obstacles to their participation in successful group work. The class teacher also expressed her intentions to train her class in the communicative and social skills (Ross, 2008) needed for effective group work (see Chapter 6, Section 6.4.2). Unfortunately, she could not organize this training because of having limited time to re-design her instructional plans (see Chapter 6, Section 6.5.1). Similarly, the low ability pupils' desires to participate in independent group work (Berk and Diaz, 2014) without the over-intervention of their support teachers could not be resolved. Therefore, the pupils' suggestions about how classroom instructions might be transformed to effective group work (Riggall and Sharp, 2010) remained unaddressed.

7.2.2.2 Socio-cultural backgrounds and pupils' perceptions

The pupils' social and cultural backgrounds played an important role on influencing their perceptions about their group placement, as well as their experiences of interacting and working with their peers.

The parental influences affected pupils to perceive their peers as helpful or unhelpful based only on their gender identity (see Chapter 6, Section 6.4.3). The interview data showed that pupils mentioned friendships with their peers. They regarded working with friends as an enjoyable experience while gaining the social and cognitive potentials of interaction (Galton et al., 2003) and confirmed the role of friendship in fostering collaboration (Erdley et al., 2002). However, these potentials were limited to same-sex friendships only. Pupils mentioned same-sex friends as their best group partners.

Above, I discussed that gender was considered as part of pupils' physical development. The differences of behavioural compatibilities between girls and boys (Strough and Mehta, 2009, p.208) affected them to show non-cooperative interactions towards other-sex peers. The pupils expressed that they did not like working with other-sex peers because their discussions were not interesting (see Chapter 6, Section 6.4.3). Girls complained that boys discussed games and sports, and therefore they preferred to be with girls only due to not having any interest in these games. Similarly, the boys complained that girls discussed fashion and musical bands which discouraged them from working with girls.

The pupils, as well as the class teacher, also referred to parental influences as a main influence (see Chapter 6, Section 6.4.3), affecting their positive attitudes towards same-sex and negative attitudes towards other-sex peers. The social norms promoted in pupils' home environments (Strough and Mehta, 2009, p.210) affected their actions and interactions inside the classroom. The class teacher regarded gender segregation among her pupils (who were from Asian British Pakistani origin mainly) as an influence of their ethnicity (Basit, 2012, p.407). Most parents from the Asian Muslim community encourage single-sex grouping in co-educational systems (Basit, 2012). Consequently, pupils' ethnicity, positioned as the macro contextual layer in the organisational ecology of the classroom (Johnson, 2008), influenced pupils' perceptions of working with others inside the classroom.

The class teacher could not force pupils to participate in mixed-sex groups due to respecting pupils' socio-religious backgrounds, a rational professional demand (Gonzalez, 2005). However, I discovered that pupils' decisions of working with same-sex peers were not directly linked with their religion. Islamic teachings do not place an emphasis on gender segregation (Alkhatir, 1996). In Islam, both males and females can talk, work and interact with one another in any normative context, including schools and workplaces. There is a specific code of interaction mentioned in the Holy book, the Quran (An-Nur 24:30-31) about interaction between males and females, whereby according to it, adult males and females are responsible for limiting their interactions with the opposite gender to refrain from adultery. The normal interactions between men and women to accomplish daily based matters of human life are permissible within the limited boundaries. There are a few places in the Holy Book (Al-Qasas 28:23-24, & An-Naml 27:32) which evidence that interaction between men and women took place during the period of the Prophet Muhammad (Alkhatir, 1996). The religion (Islam) does not create gender segregation.

However, the problems of gender segregation among the Muslim community arise when many followers interpret the same religion in various different ways and mix the religious fundamental tenets with the cultural norms that they practice in their distinctive ethnic origins, local cultures and day to day interactions (Basit, 1997, p. 408). The pupils in the particular classroom also appeared to reflect their interpretations of religion to prioritise the cultural norms that they practise in various social settings. For instance, a girl in her interview (while sharing the rationale behind her choices of working with same-sex peers) stated that she preferred to work with her brother or cousins only (see Chapter 6, Section 6.4.3). The girl's rationale for grouping and working under the single-sex grouping structure, or working with her brother or cousin seemed to represent the interpretations of her family norms and culture (Halstead, 1991), which led her to avoid working with other-sex peers. Her desire for working only with her brothers or cousins can be seen as different from another girl coming from a different Muslim community which does not emphasize gender division among primary school children, as they are too young to follow the religious obligations.

Parental influences also led some pupils to interpret academic success linked to their individual performance. Those pupils that were particularly those from the high ability groups were sensitised by their parents to get placements in the high ability groups.

In this respect, a pupil from the high ability group shared that his parents valued his good marks and considered his high levels as important for getting a good job:

M: So do your parents know your level?

R: Yeah. They ask me every day after school when I go home what did you learn at school how was it and they are happy with my levels (..... pause of informal discussion)

M: What do you think can good levels help you in your life?

R: Hhhhh just so I will get good job and it will be easier for me like to have a good job (*Interview taken from pupil from the high ability group on 6/12/13 at 2:45*)

The participant mentioned that he is encouraged by his parents to consider good academic records as a means of gaining better placement in society (Thapar and Sanghera, 2010). The particular pupil was of British Asian ethnicity. In many Asian cultures, education is not perceived as a way of acquiring knowledge only. It can also be considered as a means of bringing success, fame, pride and wealth to the family (Hong and Tao, 2014, p. 112). In the above extract, the parents appeared to inculcate the importance of getting good results in the particular child by illustrating the importance of future job or career, good academic grades or learning levels for getting a better job. Therefore, for this particular participant it was important to do well and be placed on the high ability table.

7.2.2.3 Concluding comments on pupils' perceptions

The discussion on the interview data has identified the role of pupils' immediate and wider contexts of influencing them to form different, positive and negative perceptions about their interactions with others in groups.

The immediate classroom context in the form of ability-based group organisation and teaching instructions appeared to affect how pupils described their groups and how these were organized. It affected pupils' self-perceptions and how they perceived their peers, leading them to form their identities based on their distinctive academic levels. It seemed to encourage pupils from the high and average ability groups to associate themselves with high ambitions, while discouraging pupils from low ability groups to express any ambitions at all. The classroom context also affected pupils' perceptions of their group-based experiences as positive or negative, and their peers as helpful or unhelpful. The effects of the grouping arrangement also appeared to affect pupils'

future ambitions for working in groups. The pupils from the low groups reported on the inconsistencies that they experienced in their classroom and expressed a desire to participate in other (high and average ability) groups of the class. The discussion on pupils' perceptions revealed that group work considered as a social context for social interaction could not meet the purposes of interlinking pupils as a group to encourage social interaction among them. The pupils could not develop equality and mutuality among them to work together (Webb and Mastergeorge, 2003) as a group. They appeared to segregate themselves and their peers as more and less able. The class teacher did not have time to re-design instructional approaches (Tim, 2011) in ways that would structure cooperative group work appropriate to pupils' needs.

The interview data, while sharing commonalities with the observational data, indicated that the pupils from all ability groups were influenced by their parents and socio-cultural backgrounds to consider their peers as helpful or unhelpful. Pupils formed gender based assumptions while misinterpreting their religion and considered same sex peers helpful and other sex peers unhelpful. The class teacher considered pupils' decisions of working with same sex peers as informed by their religion and did not address the gender division among pupils. Pupils' responses highlighted how classroom, home and community contexts, influenced them to interpret the group placement, gender entity and academic success in ways that prioritised individual performance, thus diminishing the perceived importance of interacting with others in collaborative group work. These relationships between pupils' micro and macro contexts need to be recognised by both class teachers and researchers while organising group work and researching pupils' interactions in classroom settings.

7.3 Discussion on the role of research approach in exploring pupils' interactions and perceptions

In this section, I reflect on using a qualitative research design to explore pupils' interactions and their perceptions of interacting with others in groups. I have used unstructured participant observations and informal conversational interviews to explore the nature of pupils' interactions and their perceptions. I discuss some of the ways in which using an open-ended and flexible research approach supported my role as a participant researcher to ensure the active involvement of my research participants (class teacher and pupils) while generating data during my field work. I demonstrate how this approach has supported me to balance insider and outsider

perspectives as a participant observer to gain a holistic understanding of the research context and to understand the nature of pupils' interactions more fully.

The qualitative research design has provided me with opportunities to gather data flexibly by participating in the daily classroom activities of the particular class (see Chapter 3, Section 3.5). This flexibility enabled me to gather data without disturbing the normal classroom practices, as acknowledged by the class teacher below:

M: How would you describe my presence in your classroom and what do you feel about your participation throughout the research process?

CT: I think it helps you notice things more about pupils, I mean the time when the things you brought to me yeah [twice] yeah it's true the way you notice things more and I think generally its quite nice [pause].... I think it's kind of good [that] it brings things to your attention

M: Yes. But any negative aspect you have noticed or felt? [Laughing tone] did you find anything as not good distracting for your teaching?

CT: Yeah it's probably just the time really I suppose but depends on what type of research it is like obviously interviews with the pupils I'll [will] I mean it didn't affect us that much really but if you have a tight schedule you don't have conversation so probably it could have an effect on our learning but we just worked out well what your plan is, and then I could tell you ok come on that day when the children are not doing something that important (informal short interview , September, 2014)

The class teacher admitted to not being very affected by my research while reflecting on the process of participating in it. The class teacher appeared to remain positive about my role as a researcher in her classroom. This flexibility of the research design enabled me to resolve some of tensions regarding my role as an observer during the process of data generation (see Chapter 3, Section 3.7) and led the class teacher to consider me as unobtrusive in assisting her to understand her pupils.

The open-ended research approach enabled me to observe pupils' interactions in their normal classroom context, rather than changing it artificially by using experiments (Woodhead and Faulkner, 2008) for my research. I was able to allow my research participants to participate in my research freely without being controlled by my pre-planned data collection procedures. I tried to involve the class teacher as a mutual partner in generating data. I shared the processes and purposes of the proposed interventions with her. We arranged several meetings to discuss the interventions before introducing them in her classroom. The class teacher was asked to reflect on the group-based skills of the pupils who were observed during the field work (see Appendix 12). Her thoughts were valued while designing interventions that were aimed to be used in her classroom. She was also given full authority to plan the time and lesson to introduce the suggested group based interventions (Appendices 01A, B and C). The interventions were incorporated in the normal classroom teaching and were not used as alternatives to modify the normal classroom.

The use of an unstructured research design enabled me to have a holistic understanding of pupils' interactions by balancing both emic and etic perspectives (Young, 2005). I remained in the field for an extensive period of time to gain a familiarity of the research context and develop relationships with my research participants (see Chapter 3, Section 3.5). However, my long presence in the classroom and my familiarity with the participants could not entirely guarantee my status as an insider. On several occasions, my perspective as an outsider and researcher overcame my observational lens. I had to conduct various informal discussions with the class teacher to get accurate details about group practices to understand pupils' interactions fully. These discussions compromised my status as an insider and made me feel more like an outsider (Merriam et al., 2001).

Similarly, I found it difficult to act purely as a researcher because of attending the particular classroom for a long period of time while presenting myself as an insider. Sometimes, I could not observe pupils solely as a researcher due to having a strong association with them, and found it difficult to be able to detach myself from the activities taking place in the field (Hockey, 1993) which led me to forget the focus of my observations. On some occasions, pupils involved me in lessons and asked for help. I was also sometimes expected to act as a support teacher to help a particular group of pupils in the absence of the support teacher, which led me to change my role from an observer to a participant in the field. This overall experience of balancing

being an insider as well as an outsider led to some tensions, but it ensured close access to research participation to gather detailed descriptions of the pupil's daily based activities and context.

Another aspect of emic perspective which helped me to fully understand my research participants was sharing an ethnic identity with them (see Chapter 3, Section 3.4.1.2). In traditional research with cross-cultural groups (Marshall and Batten, 2004), researchers mainly respect the cultural values and belief systems of their research participants. They adopt research processes aligning with the cultural paradigms of the researched ethnic groups to ensure their authority over the research's agenda. However, these universal scientific measures sometimes remain inadequate to explore holistic and accurate findings (Hoare et al., 1993) while researching different cultures as outsider researchers. In such cases, researchers' power, in the form of knowledge and expertise, can take ownership and control of the information from the research participants (Hoare, et al, 1993). Whereas, the sharing of ethnicity and a deep understanding of the culture helped me to critically reflect on the role of the pupils' socio-cultural backgrounds in influencing their interactions and perceptions of group work. This understanding not only led me to identify the cultural influences on pupils' interactions, but made me critically reflect and recommend some possible ways to address these influences in the mainstream multicultural classrooms, as explained further in the next section (see Section 7.5.2).

The flexibility, active and collaborative involvement of the research participants, and balanced emic and etic perspectives, were amongst the most important features of my research design, which helped me to develop trustworthy relationships with my research participants. It also supported me to sustain access to the research field for a long period of time as well. This overall research process enabled me to propose useful insights for future research on pupils' interactions and their perceptions of group work, as explained further (see same chapter, Section 7.5.3).

7.4 Synthesis of findings and conclusions

In the above section, I have discussed the findings of observational and interview data using Bronfenbrenner's ecological complexity theory to explain how relationships between pupils' immediate and wider contexts influenced pupils' interactions and perceptions of working with others in groups. I concluded by discussing the value of using open-ended qualitative research to explore pupils' group work.

The discussion revealed that the nature of pupils' interactions and perceptions observed in the particular classroom, confirmed as well as contradicting with expectations of social interactions emerging from constructivist theories (see Chapter 2, Section 2.3). Pupils provided examples of theoretical claims of both Piaget and Vygotsky while interacting with their peers. They participated in socio-cognitive argumentations to gain benefit from their peers in the fixed ability group, as mentioned in Piagetian theory. They also participated in shared activities to benefit from one another's knowledge and contributions in mixed ability groups. Similarly, the nature of pupils' interactions observed in the classroom strengthened the theoretical concepts of social interdependence theory (see Chapter 2, Section 2.7.1). Pupils interacted with their peers and remained cooperative while working under cooperative group structures. They did not interact with their peers and remained non-cooperative while working under individualistic and competitive group structures. While agreeing with the existing body of knowledge on group work, I also found that pupils' interactions and perceptions are not only influenced by the immediate classroom context. They can be influenced by the wider social, educational and cultural context including the group organisation that emerged in the overall school, pupils' social cultural backgrounds and parental concerns.

I categorised these areas as the influences of pupils' micro and wider context on their interactions and perceptions, while using Bronfenbrenner's ecological framework (see Chapter 2, Section 2. 8). The use of an ecological framework to research classroom based group work led me to conclude that the micro context classroom (i.e. teaching practices and group organisation) influenced pupils to adopt either positive or negative interactions towards their peers in groups. In the micro context, pupils were grouped in various ability groups based on their performance in the end of year assessments. These assessments were administered and scored by the particular school in order to differentiate pupils based on their abilities, while interpreting the national curriculum guidance. The pupils in different ability groups were given learning tasks with differentiated difficulty levels according to their assessed academic grades and levels. Pupils' categorization in ability-based groups and allocation of the differentiated teaching content in the micro classroom context affected pupils by making them focus on their individual performance rather than highlighting the value of social interactions. The micro classroom context of pupils' interactions appeared to implement mainly individual learning activities and proved unable to recognise the

interactional relationships among pupils, teachers, teaching instructions and group organisation. Similarly, the pressures of the wider context influenced pupils to differentiate group work varyingly, sometimes as positive or negative. Both the observational and interview data showed that pupils were influenced by their socio-cultural backgrounds and parental concerns to prioritise competition. They also formed gender-based social relations with their peers in order to make their interactions helpful or unhelpful. Due to time restrictions, as well as a limited cultural knowledge, the class teacher was unable to address these influences of her pupils' socio-cultural backgrounds, and the wider system on their interactions, to improve group work in her classroom.

The influences of the micro, as well as the macro context, affected pupils' ability to adopt unpredictable, sometimes cooperative and at other times non-cooperative, interactions during their routinely organized group work. The micro context of pupils' group work manifests various external social, organisational and cultural layers and affects pupils' ability to adopt different interactions and perceptions towards their peers in different situations. The identification of such contextual influences on pupils' interactions and their perceptions led me to conclude that the success of group work in a state run primary classroom is not just dependent on pupils and their class teachers. It is dependent on the various internal and external forces of immediate and wider contexts of the pupils. These internal and external contextual forces affect pupils' ability to be able to adopt dynamic interactions towards their peers, and also affects class teachers by limiting opportunities for them to recognise relationships between pupils and their contexts. Therefore, I conclude that the pupils' interactions are situational and different, which can be analysed while using theories of learning proposed by Piaget and Vygotsky. However, pupils' interactions and perceptions are influenced by their immediate and wider contexts, which can be understood more fully while using ecological theories. The influences of both immediate and wider context need to be recognised if one is to use an appropriate theoretical framework and modes of open-ended participatory exploration to improve pupils' interactions in such classrooms, as elaborated in the upcoming section.

7.5 Implications of the study

The above mentioned lessons that I learnt from the research enabled me to list a few implications for class teachers, educational researchers and policy makers, which can be helpful in understanding pupils' interactions in mainstream classrooms which share

characteristics with the observed classroom. In this section, I explain the implications of my research for theory, policy and practice, and make suggestions for further research on pupils' interactions in the following sub-sections.

7.5.1 Implications towards the theory of pupils' interactions

The previously discussed nature of pupils' interactions and their perceptions (see Chapter 7) suggested that we need to understand the context first in order to understand the reasons behind the interaction among pupils. This exploration of the context requires the use of some other theoretical framework beside constructivist theories. The state run school classroom is not a neutral social context in which to research the nature of pupils' interactions. It has various micro and macro nested structures (Bronfenbrenner, 1995), which affect its practices. Therefore, I suggest that we can explain the effectiveness or ineffectiveness of social interaction among pupils by using the constructivist theories of Piaget and Vygotsky. However, we also need theoretical frameworks that will help us to understand how context influences the organisation, practices and patterns of social interaction among pupils.

The role of the immediate classroom context in influencing the success and failure of social interaction has already been widely researched. There is an extensive body of research on pupils' group work (see Chapter 2, Section 2.7), in which various survey based experimental studies stressed on structuring classroom conditions to improve pupils' interactions during their group work. The importance of large scale surveys and randomised control trials in understanding and improving group work cannot be denied, as they have suggested multiple ways to improve the quality of collaborative learning and social interaction in the classroom. For instance, Baines et al. (2009) introduced specifically designed cooperative group structures and learning activities to enhance social interactions among pupils in real classroom settings. They altered classroom settings for a specific period of time by embedding their interventions in the normal teaching plans in order to save the time and workload of class teachers (Baines, et.al, 2009, p.69). The positive change between the pre and post results of the studies highlighted that social interaction among pupils can be enhanced, by introducing group-based activities, planning and organising classrooms in ways which favour group work. However, I have shown that the influences of the classroom context on pupils' interactions and their perceptions were not limited to the immediate and micro settings only. The pupils' interactions were also affected by larger and macro organisational structures.

My findings suggest that pupils' interactions are influenced by their socio-cultural backgrounds while working in group-based activities. Pupils' awareness of the competitive economic structures and nationwide interests in raising academic standards influenced them to be individualistic. Similarly, their religious interpretations for working with same-sex peers affected the nature of cooperation among girls and boys in the particular classroom (see Chapter 7, Section 7.2.2.2). The lack of opportunities for the class teacher to explore pupils' socio-cultural backgrounds enabled her to perceive their influences as barriers in organising successful group work. It led the class teacher to not challenge (Cummins, 2001) pupils' interpretations of individual work and gender division to promote inclusive group work in her classroom. Therefore, I suggest that class teachers and researchers need to pay attention to gender division, competition and individual goal structures that exist in pupils' diverse socio-cultural backgrounds, and influence their educational lives (Bakker et al., 2007, Rogoff, 2003). They need a conceptual framework which will allow them to acquire knowledge about pupils' households and communities (Moll et al., 2001, p.16). Teachers need to understand the various personal, social, cultural and national aspects of pupils' lives which directly or indirectly influence their participation in the classroom. This understanding can help class teachers to adopt redefined teaching practice (Cummins, 2001) to meet the needs of culturally diverse pupils and to educate them to fully participate in mainstream classrooms, as explained in the subsequent section.

By suggesting these implications for the theory of pupils' interactions, I conclude that the theoretical knowledge which fails to include pupils' diversities may not be helpful for teachers and researchers to understand pupils' interactions. In the field of pupils' interactions, we have various theories to understand the processes of pupils' learning and development through social interaction. However, we also need some other theoretical frameworks which can help us to explore the various social and cultural strands associated with pupils, which influence their interactions in classroom based group work. We need to broaden our theoretical perspectives in order to deeply study the classroom context by exploring its relationships with various internal and external factors, which influence and sometimes restrain class teachers from practicing the proposed theoretical notions of group work to improve pupils' interactions in their classrooms.

7.5.2 Implications for policy and practice

In this section, I explain the implications for general teaching policies and practice in order to address some of the organisational issues related to group work among pupils.

The findings of my research suggest that pupils' group work in the particular classroom was influenced by the immediate as well as wider contexts. The class teacher shared her desires to tackle the influences of micro context, such as managing pupils' group behaviours to increase their cooperative interaction (see Chapter 6, Section 6.4.2). However, she did not mention any strategy to cope with the influences of pupils' wider context. The class teacher wanted to address non-coordination among pupils but did not want to address gender-biased non-cooperative interactions among them, which appeared to influence their interpretations of working with others (see Chapter 7, Section 7.2.2). Her lack of knowledge about pupils' cultural lives seemed to limit her understanding of gender as prioritised in their households (Amanti, 2005). The class teacher seemed to perceive the influence of the cultural environment on pupils' interactions and perceptions as fixed and unquestionable (see Chapter 6, Section 6.4.3). Due to sharing the same cultural and religious background as the majority of the pupils, I discovered that the misinterpretations of gender which did not come from their religion, but from their culture, should be addressed to enhance social interaction among mixed-sex peers in primary classrooms. Similarly, pupils' interpretations of academic success based on individualised efforts as an effect of parental concern on pupils' perceptions of group work, also need to be addressed as explained in the following paragraphs.

I begin by discussing the role of school management and leadership, which play an important position while discussing the implications for teaching practice. School management operates under the tenets of national policy and broader educational systems, which serve as macro organizational structures in the ecological framework (Johnson, 2008). The broader educational structures, school management and individual teachers together determine the interactions that pupils experience in school (Cummins, 2001, p. 199). For instance, I requested for the class teacher to organize structured group based activities in her classroom to encourage social interaction among pupils (see Chapter 3, Section 3.5.4). She organized some of interventions as part of the research process but was not able to fully participate in them due to time constraints (see Chapter 3, Section 3.5.4). The pressures of time, pre-planned teaching content and classroom organisation enabled her to stick with a

particular practice (Alexander, 2012) and discouraged her from being reflective by adopting the recommended change to enhance cooperative interactions among her pupils (Baines et al., 2008). During the field work, she also occasionally complained that what they had learnt during their training could not be applied in their practice in all cases (see Chapter 3, Section 3.4.1.2). The class teacher appeared to give priority to the influence from her own schooling and work experience (Feiman-Nemser, 2001), as being a novice teacher, which highlighted the limits of macro structures (i.e., school management), on her endeavours to understand the pupils (Cummins, 2001) in her classroom (see Chapter 7, Section 7.2.1.1).

The macro organisational structures of the classroom also affected pupils by showing a resistance towards the change introduced in their classroom to improve the conditions of group work. The pupils were not able to bring about a sudden change in their competitive interactions while working on the suggested group-based activities (see Chapter 5, Section 5.4.1.3). The structured group-based activities were organized in the particular classroom temporarily as part of the research project only. Thus, their classroom context was changed for a while, but not permanently, to foster group work in a planned and structured manner. The external organisational structures appeared as inconsistent with what was needed for pupils' learning through social interaction in the observed classroom. This inconsistency between what worked in the immediate classroom settings and its external organisational structures did not help to improve the conditions of pupils' interactions in my research. Therefore, I suggest that the immediate and wider organisational structures of the classroom should have a consistency between themselves to engage pupils in successful interaction during their group work.

The macro organisational structures, including teacher education, curriculum and school management should facilitate teachers to develop classroom practices according to the demands of their distinctive classroom context (Drummond, et.al, 2013, p. 123). Class teachers should be supported by the system to become reflective practitioners (Miller et al., 2003) to improve interaction among pupils by introducing innovative teaching matched with the pupils' distinctive learning desires. Generally, the wider/macro organisational structures of the classroom appear to set limits and specifications for the interaction between individual teachers and pupils. In some cases, the macro structures may define roles for individual teachers on how to interact with culturally diverse pupils (Cummins, 2001, p. 205). This unidirectional nature of

the relationship between macro and micro structures, as explained in the ecological framework of organisational hierarchy (Holbein et al., 2005), may prove insufficient to recognise the change needed to improve conditions in the micro settings.

However, Swann et Al. (2012) made suggestions to develop the supportive networks amongst individual teachers and the internal leadership of the school in order to transform its culture to offer pupils an engaging learning experience. Swann et al. (2012) mentioned a longitudinal case study of a primary school in which the head teacher supported its staff members to resist the externally imposed prescribed pedagogy. The staff members were fully supported by the head teacher in introducing the vibrant learning community with their particular focus on respecting pupils' learning needs. This example highlights the important role of school based internal leadership, which can provide collective resources, structures and strategies to enhance the capacity of individual teachers to make choices in the interests of increasing pupils' participation in the classroom (Swann et al., 2012).

A similar kind of collective internal team work between school management and individual teachers is required in order to motivate teachers to develop a shared agency with pupils (Hart et al., 2004) so that they can fully understand them. The concept of creating a shared agency came from a joint research project conducted by nine teachers, who worked with young people aged 15 to 16 in different school settings, to transform their classrooms by fostering a culture of learning without limits (Hart et al., 2004). These teachers transformed their individual classrooms in different parts of the country to highlight whether if teachers and learners both participate in joint endeavours in order to understand one another, the educational settings can be changed for pupils' betterment, despite facing pressures from the external educational authorities.

Such partnership among teachers and pupils is required to address the influences of pupils' socio-cultural backgrounds and family environment (Amanti, 2005, p.139) on their participation in classroom based group work. While considering pupils' perceptions of gender division, I suggest that pupils in the particular classroom need to be informed of the gender-biased stereotyped attitudes and behaviours which can affect their interaction and perceptions of other-sex peers in their future educational and professional lives (Leaper, 1994). Later in life, the gender division can generate power based inequalities among males and females, and communication barriers in heterosexual relationships (Leaper, 1994, p.72). Class teachers should develop their

own, as well as pupils' understandings, of the unfavourable influences of gender segregation on their relationships with their peers. In order to do this, teachers should have the opportunity and willingness to collaborate with researchers sharing socio-cultural similarities with their pupils (Conteh, 2015) to explore first-hand knowledge of pupils' social backgrounds (Moll et al., 2001).

In a well-known classroom based research project "Funds of Knowledge for Teaching" (Moll et al., 2005), ten class teachers collaborated with university based researchers to develop connections with pupils' families and households in order to understand them fully. A range of qualitative research methods, including ethnographic observations, open-ended interviews, life histories and case studies, were used to explore how pupils' parents and other family members interact and connect with changing social environments. After the field work, teachers used their knowledge of pupils' households to develop their classroom based instructional by make them more participatory and pupil friendly. Teachers reported that their attempts to explore pupils' households and cultural backgrounds helped them to develop symmetrical relationships with pupils and their parents. These relationships helped teachers to exchange knowledge about school and family matters and led them to understand pupils in a more sophisticated way (Moll, et.al, 2005, p.79) rather than thinking in a stereotypical way. In the case of my study, I propose that the class teacher, as well as school management, should develop their connections with pupils' parents to address gender division and competition among pupils. Such a deep and close awareness about pupils' families and cultures may help teachers to perceive gender segregation and competition as non-fixed patterns of behaviour and lead them to address their negative influences on pupils' interactions in the classrooms.

7.5.3 Implications for future research on pupils' interactions

My experiences of using open-ended and emergent natured research design (Gonzalez et al., 2005) has helped me to suggest a few implications for future research on pupils' interactions, as explained in this section.

Based upon my experience of conducting unstructured participative field work for almost a year, to explore the nature of pupils' interactions and their perceptions of group work, I propose that research on social interaction and group work should be longitudinal. Short term research may not be sufficient to fully understand the nature of pupils' interactions, particularly to analyse the various above identified factors (see

Chapter 7, Section 7.2) which are interlinked with pupils to influence their participation in the classroom. This long term presence in the field can help researchers to understand pupils and their relationships with immediate and wider contexts influencing their interactions in groups. Such a comprehensive understanding of pupils' academic and social lives as an outcome of longitudinal research can facilitate academic practitioners to organize group work in ways which appropriately match pupils' needs.

My experience of empowering the class teacher to organize the proposed activities in the normal lesson as she feels comfortable (see Chapter 3, Section 3.5) led me to propose that research based interventions need to be closely linked and embedded in the real classroom setting. The actual classroom context should not be changed to organize artificially designed interventions for the sake of research for only a limited period of time. The actual real classrooms practices can be different from the artificial interventions introduced during the research process. The suggestions designed in the light of artificial settings may provide an overall picture to understand emerging situations, but do not provide teachers with enough opportunities (Amanti, 2005) to identify what works for their pupils. They may not prove helpful in accurately understanding the nature of pupils' interactions during their group work. Therefore, teachers should be encouraged to act as collaborative researchers (Ghaye, 2010) while participating in research projects. They should be given a democratic and participatory role as researchers to generate and use the research knowledge (Simons et al., 2003), rather than following the dictation of researchers. They should be involved in the planning and designing interventions that intend to be introduced in their classrooms to improve their teaching practice.

The particular class teacher that I worked with acknowledged the advantages of using a flexible research approach, which appeared to make her feel less-burdened (see Chapter 7, Section 7.3). She admitted that she felt more sensitive about the aspects of pupils' interactions, which she was not able to identify before participating in the research. The class teacher seemed to acknowledge the importance of using flexible and open-ended research approaches in the classroom, and therefore I suggest that classroom based research should be flexible and open-ended. Flexible, open-natured and less-obtrusive research approaches may motivate class teachers to ensure their active participation in the overall research process (Kincheloe, 2012).

In addition to teachers, pupils should also be given the chance to participate actively in classroom-based research. The examples derived from the interview data (see Chapter 6) show that pupils construct their thinking as a result of influences from the outside world (Goodwin and Kyratzis, 2007). They demonstrated dynamic interactions and expressed dynamic views about group work, which helped me to fully understand the challenges behind their unsuccessful interaction with others. Pupils expressed their thinking on ability-based group organisation in their classroom. Their desire to improve their group work (see Chapter 6, Section 6.5) made me realise that pupils also possess the ability to observe and judge actions and attitudes. They are complete and identifiable individuals of the society (Hendrick, 2008), and have more confidence in themselves as learners (Dweck, 2006). They can be the best people to provide more accurate and complete information about the meaningful social events that take place around them (Scott, 2008, p.88). Although, the observational data and informal discussions with the class teacher gave me enough detail to address my questions, the importance of the pupils' responses cannot be ignored in highlighting the intense tensions associated with their interactions and perceptions of group work. I therefore suggest that pupils' active participation is necessary in further research on pupils' interactions in order to identify the problems associated with their learning through social interaction.

Pupils' participation in classroom based research can help researchers to understand the role of the classroom as well as the wider context on their interactions and perceptions of group work. In traditional research on social interactions, pupils' experiences have been explored and reported through the views and interpretations of the researchers, which reduces opportunities for pupils to express reliable information about their experiences. Such explorations treat children as objects and almost exclude them from the research process (Christensen and James, 2008). I provided pupils with the opportunity to actively participate in my research by getting close to them and enabling them to convey their perspectives freely (see Chapter 3, Section 3.5). I interviewed pupils informally which led them to express themselves and reflect on their experiences of working with others in different groups. As a result, I was able to gain rich descriptions (Geertz, 1973) about their interactions and perceptions of group work. This particularly helped me to understand the various factors that influenced their thinking and the perceptions of group work as positive or negative. Therefore, I suggest that researchers should treat pupils and young children as social agents in the

research process, as they have a voice and opinions to express themselves similarly to adults. Pupils should be perceived as competent research participants with particular communication skills that researchers can draw upon in social research (Marrow, 2008, p.4). Pupil participation should be valued to gain highly beneficial insight to understand the various complex factors affecting their academic progress, learning and interactions in the school setting (Flutter and Rudduck, 2004).

In order to fully hear pupils' voices in classroom based research, there is a need to use research techniques that align with children's experiences, interests, values and their everyday routines (Christensen, 2004, p. 165). The use of open-natured, flexible and collaborative methods (see Section 7.3) led me to suggest that researchers should follow flexible research methodologies and designs which enable pupils to share knowledge about their experiences flexibly and openly. Pupils should be involved in longitudinal inquiries (Connolly, 2008), which may help researchers to understand the wide range of social, cultural and historical aspects of pupils' lives, which can influence their development and bring diversity in their actions and opinions in the classroom.

7.6 Limitations of the study

This section describes the methodological limitations of the study which helped me to highlight a few other possibilities to be taken into account while researching pupils' interactions and group work.

The first limitation I felt while conducting my study was the limitation of sample size. I studied one classroom as a case and then selected six participants from each ability group as subcases in the same classroom. I could not broaden the number of classes and participants due to limited time and resources. I feared that some of the findings and conclusions drawn from my study may be context specific (Denzin, 2009), particularly in the case of highlighting the influences of pupils' ethnicities on their interactions. I explored that pupils' social cultural backgrounds influenced them to exhibit competition and gender division while being non-cooperative towards group members. In my study, most of the pupils were of South-Asian Pakistani heritage. I would have liked to have included pupils from another heritage in order to explore the influences of a different culture on gender and competition. This might have given me the opportunity to analyse commonalities and diversities existing in different cultures and affecting pupils' interactions in their classrooms. As a result, this might have

enriched my recommendations for consulting and connecting pupils' homes with their schools to generate a cohesive cooperative atmosphere in the classroom.

The second limitation I realised was an inadequacy of using informal conversational interviews while exploring pupils' thinking of group work. I found some of my research participants were not willing to express themselves fully on a few occasions. For instance, one of my participants from a low ability group did not answer me very well, and repeatedly said "I don't know", for most of my questions. He gave me a few important answers but did not like to be probed any further to share the details behind his negative experiences of working in ability groups. Similarly, one of my participants from the low ability group did not want to be interviewed in the first phase of data collection. I spent much time with her to talk informally about her group work for several afternoons. She answered me well about the activities but none of the other aspects, particularly interacting or working with others. I was slightly pressurised with a hectic and long term observational schedule, therefore, I could not think of any other method to probe pupils' thinking and reflections about group work in that particular classroom. However, retrospectively I feel that I could have used visual methods in the form of drawings, paintings and any other participatory techniques, to ensure the active engagement of pupils (O'Kane, 2008) and to allow them to express their thinking autonomously (Emmison and Smith, 2000). I see now that engaging particular pupils in some other types of verbal or written communicative mediums could have encouraged them to express themselves more explicitly. Pair or group interviews might have been better for making the interviewing process more informal.

The third limitation which I encountered later after analysing my data was the passive involvement of parents. I interpreted the data and realised that parental stress was among the main factors contributing competition among pupils (see Chapter 7, Section 7.2.2). In that time, I felt the need to explore the nature of parental concerns about their children's performances and their group's placements in the particular classroom. However, it was too difficult to go back in the field to involve parents when exploring these details due to a limited timeframe and resources for completing this project. As a result, this limitation of my research has given me a starting point for further research on pupils' interactions, in which the influences of pupils' social and cultural backgrounds and parental concerns on pupils' participation in group-based learning activities can be explored thoroughly. These influences termed as 'funds of knowledge' (Gonzalez, et al, 2005, p.108) are the knowledge that pupils

gain from their family and socio-cultural backgrounds, which can possibly be used to enhance inclusive and meaningful social interactions among pupils in classrooms.

7.7 Summary of the chapter

This chapter has presented the discussion, conclusions and implications of the study. The discussion on the findings of the study has highlighted a range of social, cultural and contextual factors, which need a broader theoretical framework to understand pupils, their developments and the influences of the immediate and wider context on their academic participation. The implications for practice stressed upon the need for introducing flexible teaching strategies and class organisation which recognise the diversity that exists in pupils' cognitive capabilities and their social development. The implications for research suggested using flexible and open-ended research approaches, which empower class teachers and pupils to participate in research processes as collaborative researchers, while researching group work and social interaction in mainstream classrooms. They should be approached flexibly to provide their perspectives conveniently and actively by considering research as a way to improve their learning experiences, not as a professional and moral commitment to only please researchers. At the end of the chapter, some methodological limitations of the study are listed, which include limitations of the sample size, interview techniques, and limitations in the demographic characteristics of the participants involved in the research process.

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APPENDICES

APPENDIX 01:

INTERVENTION PLAN FOR THE CLASS TEACHER

List of themes that emerged from the data during the first phase of field work

- Explaining the given task
- Discussing the given task
- Talks irrelevant to task
- Co-operation/helping interaction among groups' members
- Helpful attitude
- Helping in lessons
- Helping in general ways
- Encouraging each other
- Non-cooperative/ Unhealthy interaction among groups' members
- Ignoring peer's feedback
- Complained of being copied
- Showing disrespect to others
- Not sharing points
- Not willing to work with others
- Not willing to accept other's help
- Discouraging each other
- Wanted to lead
- Gender division
- Prefer to work individually
- Not caring about lesson instructions
- Talking help from class teacher
- Working individually
- Not finding lesson interesting
- Participating in classroom discussions

The above listed points describe the pupils' interactions and behaviours during their group work observed in the first phase. The list shows some positive behaviours that pupils demonstrated during their group work. The pupils also showed some non-cooperative actions including poor group skills, competition and individual work. I

planned a few activities to help pupils to improve their attitudes and interactions towards their peers. The activities will be incorporated in the normal teaching plans and will be organized by class teacher.

Appendix 01 (A): Activity No. 1 (Literature as a stimulus: learning some skills for working together)

Aim: The aim of the activity will be to remind pupils about the different skills of working together in groups. Pupils in Year Five may already be familiar with group work. However, as pointed out by the class teacher, they do not follow rules when they actually participate in group based learning activities during their lessons.

Process: The class teacher will organize discussions in the classroom during PSHCE lessons. She will ask pupils to think about different skills which can help them to work with others with good manners. The title of the discussions will be:

Example 1: Good Friend Recipe

The teacher will ask pupils to think about and share what ingredients can be added for making good friends/working partners in our groups. The teacher will initiate this by saying I think..... One cup of kindness. The ideas will be written on the board. Depending on the workload and overall lesson plan, there is the possibility for asking pupils to make posters of their recipes and place them on the wall. The designed posters can be used as a reminder to organize helpful group work during all lessons.

Example 2: Developing Rules for Group Work

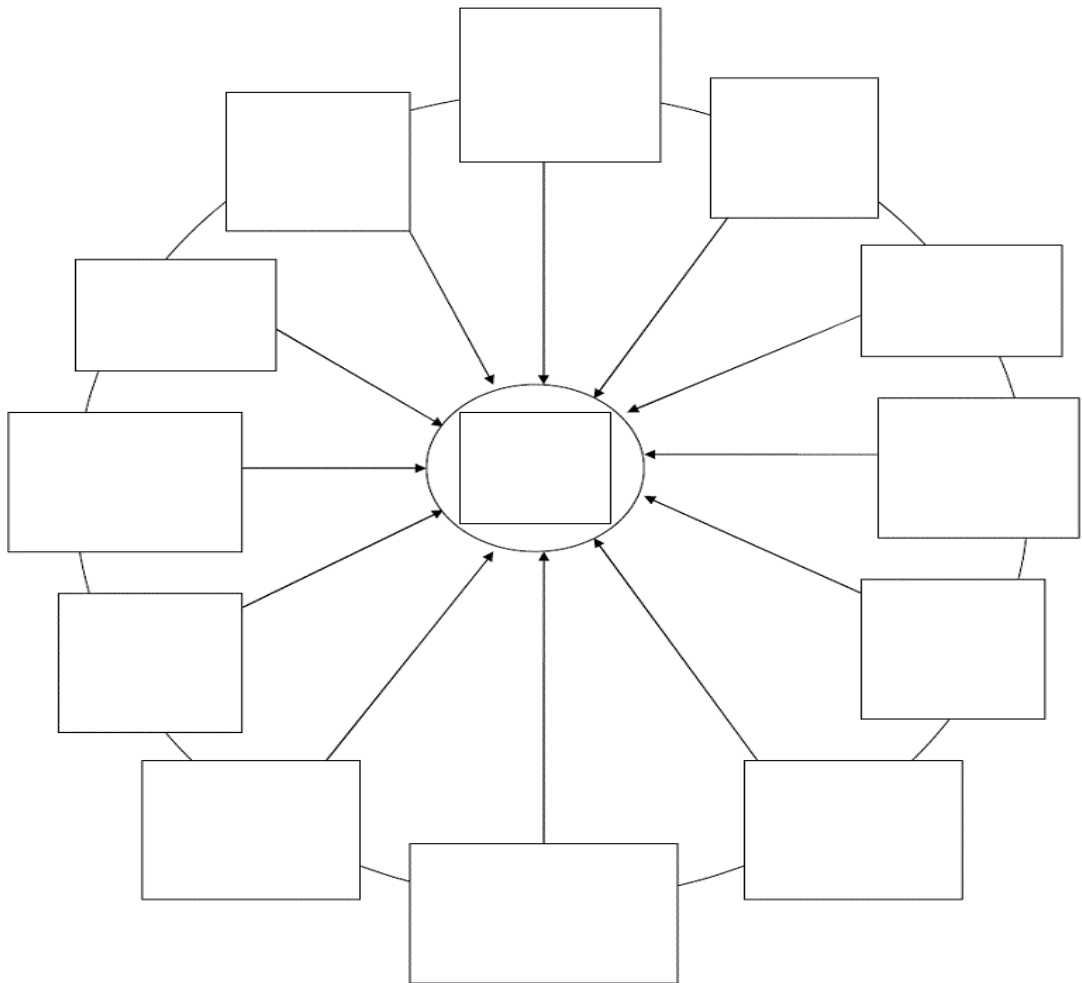
The pupils will be asked to write rules for working cooperatively in groups. The class teacher will negotiate with pupils to decide on a few actions they can do and few things they cannot do for favourable group work during lessons. Later on, all these discussed points will be written on a chart to display in the classroom.

Appendix 01 (B): Activity No. 2: Discussion Wheel

Aim: To organize small group discussions and to ensure that each pupil has made a contribution.

Process:

1. Choose a focus or topic related to the on-going lesson.
2. Give a discussion wheel to pupils to discuss in their groups.



3. Ask pupils for each child in their group to have a segment to write their ideas in.
4. Ask them to share, discuss and record their ideas on the wheel.

Appendix 01 (C): Activity No. 3: De-briefing

Aim: Taking feedback after activities to learn about the good and bad experiences of pupils working together for any particular activity.

Process: After finishing any group work in the classroom, the class teacher will ask the following questions:

How did you feel?

How did you feel when someone shared their ideas?

Were you afraid you would look foolish because you haven't said anything?

How did you feel about a person who didn't follow directions or misunderstood the instructions?

What processes enabled you to finish quickly?

What processes hampered you not to finish quickly?

Example 02: Tick-list for group work

Aim: The tick list may enable pupils to provide feedback for each other's participation in their different fixed and mixed ability group.

Process: Pupils will be asked to complete the following tick list at the end of any group activity.

What are the people in your group good at? Tick the areas of 'group talk' they do well.

What do we need to work on?

People	Co-operating	Listening	Explaining	Instructing	Sharing

Appendix 01 (D): Observational plan

1. Pupils will be involved in a discussion session with the class teacher. The topic of those discussions will be “group work”. The pupils will be asked to express their understanding and thinking about working together in their classroom. Pupils’ responses will be recorded with a voice recorder.
2. The pupils will be given activities, for example, the discussion wheel, and group debriefing in their normal (literacy, numeracy and science) lessons. They will be observed in normal groups and will be recorded with the voice recorder.

The pupils will be observed in their normal classroom based groups.

Note: The observational plan is subject to any change you like while considering your timetable

APPENDIX 02: INFORMATION SHEET FOR HEAD TEACHER (SCHOOL OF EDUCATION)



UNIVERSITY OF LEEDS

Research project: Analysing pupils' interactions during their group work

I wish to invite you to take part in this research project. Please take time to read the following information to help you decide if you wish to take part. If you have questions, please get in touch.

What is the purpose of the project?

The purpose of the project is to explore the nature of pupils' interactions and collaboration during their group work. The major aim of research is to analyse the differences in pupils' interactions and actions while working in different groups during their class work.

Why have I been chosen?

You have been chosen because you are the head teacher of a primary school. You are the person who has the authority to allow me to carry out research in your school. The research will be conducted in one primary classroom of your school. It will involve the class teacher and their pupils during the data collection.

What will happen if I agree to take part?

If you agree to take part, we will ask you for your permission to carry out research in your school. You will be given this information sheet to keep. You will be requested to sign a consent form. You have full authority to withdraw from your participation at any stage if you want. The research will involve observation of pupils' group work in a primary classroom. The pupils will be asked informal questions about their classroom's experiences. The research is not involving pupils in any physical or social activity which may harm them. The groups will be organized flexibly depending on the lesson plans of the class teacher and I will try not to disturb my participants in their routinely activities.

What are the possible disadvantages and risks of taking part?

The study will not involve any physical or social activities which may bring any harm to you, the class teacher or the pupils. It will involve observation of group work and

will involve school pupils in informal discussions about their classroom experiences. The researcher will not introduce any intervention in the classroom settings which may disturb learning activities and school work of the pupils.

What are the possible benefits of taking part?

Your participation in this project will definitely help me to answer the issues raised through this proposed study. The findings of the study may reveal helpful ideas about the organisation of group work in the primary classroom. During the field work, our mutual partnership may help us to identify some problems related with student's participation during their lessons. We may also discover some ways to organize a socially constructive atmosphere in the classroom which may facilitate your pupils in their learning.

Will my taking part in this project be kept confidential?

It is guaranteed that all information gathered through observation and informal interviews will be kept confidential. The name of your school and pupils will not be disclosed in the publication of the study. The data may be shared with my supervisors from the university however it will be shared using university email. All the data will be stored on the M Drive and I will take special care of field notes and diaries which will not be discussed with anybody from outside.

What type of information will be sought from me and why is the collection of this information relevant for achieving the research project's objectives?

The study will focus on the pupils' interactions, verbal and non-verbal conversation with their classmates during their group work. The purposes of the study are to explore the nature of the study during group work and how it gets changed under different grouping structures and why.

Will I be recorded, and how will the recorded media be used?

It would be very much appreciated if you were able to let me use audio devices in the classroom. In this case, pupils' conversations will be recorded through tape recorders. The usage of devices will be decided purely on the choice of class teacher as well to facilitate her in carrying out their normal class work. The recoding will be transcribed by myself and will be used for data analysis. However it may be possible that the conversation of the pupils may be published in form of dialogue to strengthen the research finding. In such cases, their names will remain confidential.

What will happen to the results of the research project?

The name of your school will remain anonymous in the case of the results' publication. The decision will be purely your choice if you express your willingness to mention your name publically.

Who is organising and funding the research?

This research is being organized by myself, Samyia Ambreen, under the supervision of Dr Jean Conteh and Dr Martin Wedell from the School of Education at the University of Leeds, and is self- funded. If you wish to speak to me, please reply by email or telephone - Mobile: 07552742112

Thank you very much for reading this information sheet. We hope that you will enjoy taking part in this project and thank you for your time and interest.

Informed Consent Protocol for Head Teacher

Title of research project: Analysing pupils' interactions during their group work

1	I confirm that I have read and understand the information sheet explaining the above research project and I have had the opportunity to ask questions about the project.	
2	I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason and without there being any negative consequences.	
3	I understand that all data collected from my school will be kept strictly confidential. I give permission for members of the research team to have access to anonymous responses of the pupils and class teacher. I understand that the name of school will not be linked with the research materials, and it will not be identified or identifiable in the report or reports that result from the research.	
4	I agree for the data collected from my school to be used in future research	

Name of the participant:

Name of the Researcher:

Signature _____

Signature _____

APPENDIX 03: INFORMATION SHEET FOR CLASS TEACHER (SCHOOL OF EDUCATION)



UNIVERSITY OF LEEDS

Research project: Analysing pupils' interactions during their group work

I wish to invite you to take part in this research project. Please take time to read the following information to help you decide if you wish to take part. If you have questions, please get in touch.

What is the purpose of the project?

The purpose of the project is to explore the nature of pupils' interactions and collaboration during their group work. The major aim of research is to analyse the differences in pupils' interactions and actions while working in different groups during their class work.

Why have I been chosen?

You have been chosen because you are a class teacher with a large number of primary school pupils in a primary school in Leeds.

What will happen if I agree to take part?

If you agree to take part, we will ask you for your permission to carry out research in your classroom. You will be given this information sheet to keep it with yourself. You will be requested to sign a consent form. You have full authority to withdraw from your participation at any stage if you want. The research will involve observation of student's group work in a primary classroom. The pupils will be asked informal questions about their classroom's experiences. The research is not involving pupils in any physical or social activity which may harm them. The groups will be organized flexibly depending on your lessons plans and I will try not to disturb your routinely classroom's activities. You will also be invited to take part in informal discussions to share adequate information about group work in your classroom.

Will I be recorded, and how will the recording be used?

With your permission, I will take notes of student interaction during observation and will record the informal discussions so that I have a good record of what you have said. I will be the only person to write the notes and to listen the recording. I will transcribe all recordings so that my supervisors can read it. I will change all the names

so that no one else will be able to identify you or your school. Before, I share the transcripts; I will check with you that you are happy for me to do this. If there is anything that you are not satisfied with, I will not share this. After I have finished doing the research, the recordings will be kept safely in a file at the university. During the discussion if you feel uncomfortable about having anything recorded, please let me know freely and I will switch the recorder off. I will not show the results to anyone else, but I will write and will speak to other people from universities at conferences and seminars.

What are the possible disadvantages and risks of taking part?

The study will not involve any physical or social activities which may bring any harm to you, or your pupils. It will involve observation of group work and will involve school pupils in informal discussions about their classroom experiences. The researcher will not introduce any intervention in your classroom which may disturb learning activities and school work.

What are the possible benefits of taking part?

Your participation in this project will definitely help me to answer the issues raised through this proposed study. The findings of the study may reveal helpful ideas about the organisation of group work in the primary classrooms. During the field work, our mutual partnership may help us to identify some problems related to pupils' participations during their lessons. We may also discover some ways to organize socially constructive atmosphere in the classroom which may facilitate your pupils in their learning.

What type of information will be sought from me and why is the collection of this information relevant for achieving the research project's objectives?

The study will focus on the pupils' interactions, verbal and non-verbal conversations with their classmates during their group work. The purposes of the study are to explore the nature pupils' collaboration during group work and how it gets changed under different grouping structures.

Will my taking part in this project be kept confidential?

It is guaranteed that all information gathered through observation and informal interviews will be kept confidential. Your name, the name of the school and pupils will not be disclosed in the publication of the study. The data may be shared with my

supervisors from the university, however it will be shared using university email. All the data will be stored on M Drive and I will take special care of field notes and diaries which will not be discussed with anybody from outside.

Who is organising and funding the research?

This research is being organized by myself, Samyia Ambreen, under the supervision of Dr Jean Conteh and Dr Martin Wedell from the School of Education at the University of Leeds and is self-funded. If you wish to speak to me, please reply by email at edsam@leeds.ac.uk or telephone at 07552 742112. Thank you very much for reading this information sheet. We hope that you will enjoy taking part in this project and thank you for your time and interest.

Informed Consent Protocol for Class Teacher

Title of research project: Analysing pupils' interactions during their group work

1	I confirm that I have read and understand the information sheet explaining the above research project and I have had the opportunity to ask questions about the project.	
2	I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason and without there being any negative consequences. In addition, should I not wish to answer any particular question or questions, I am free to decline.	
3	I understand that my responses will be kept strictly confidential. I give permission for members of the research team to have access to my and pupils' anonymous responses. I understand that our names will not be linked with the research materials, and they will not be identified or identifiable in the report or reports that result from the research.	
4	I agree for the data collected from me and my class to be used in future research	
5	I agree to take part in the above research project and will inform the head teacher.	

Name of the participant:

Name of the Researcher:

Signature: _____

Signature: _____

APPENDIX 04: INFORMATION SHEET FOR PUPILS’ PARENTS (SCHOOL OF EDUCATION)



Research project: Analysing pupils’ interactions during their group work

I wish to invite your child to take part in this research project. Please take time to read the following information to help you decide if you wish your child may take part. If you have questions, please get in touch.

What is the purpose of the project?

The purpose of the project is to explore the nature of pupils’ interactions and collaboration during their group work. The major aim of the study is to analyse the differences in pupils’ interactions, actions and their conversations while working in different groups during their class work.

Why have I been chosen?

You have been selected because your child attends a local primary school in Leeds.

What will happen if I agree to take part?

If you agree to take part, we will ask for your permission to allow your child to take part in the research that is going to be held in his/her classroom. You will be given this information sheet to keep. You will be requested to sign a consent form. Your child has full authority to withdraw from his/her participation at any stage if they wish. The research will involve observation of pupils’ group work in their primary classrooms. Your child will be asked to take part in informal interviews to share their experiences in classroom. The research will not involve your child in any physical or social activity which may harm him.

Will I be recorded, and how will the recording be used?

With your permission, I will take notes of what your child does during group activities and to note their work in details I may audio record his/her informal conversation and discussion at any time during the lessons. Pupils will not be told when they are being recorded to try to ensure that their actions are as natural as possible during observation. However, before conducting interviews, your child will be asked to tell me if he/she feels uncomfortable about being recorded at any time during the

interviews, and if s/he does I will switch the recorder off. I will be the only person taking notes and the one transcribing all recordings. These will be only read by myself and my supervisors. I will change all the names therefore no one else will be able to identify your child. After I have completed data gathering, the recordings will be kept safely in a file at the university. I will not share the actual recording or data with anyone else, but I may write and speak about the results and findings at conferences and seminars inside or outside the university.

What are the possible disadvantages and risks of taking part?

The study will not involve any physical or social activities which may bring any harm to your child. It will involve observation of his/her participation in group work and will involve them in informal discussions about their classroom experiences.

What are the possible benefits of taking part?

The participation of your child in this project will definitely help me to answer the questions that have motivated this proposed study. The findings of the study may reveal helpful ideas about the organisation of group work in primary classrooms. It may also discover some ways to organize a socially constructive atmosphere in the classroom, which may facilitate your child in his/her learning.

Will my taking part in this project be kept confidential?

It is guaranteed that all information gathered through observation and informal interviews will be kept confidential. Your child's name will not be disclosed in the publication of the study. The data may be shared with my supervisors from the university however it will only be shared by using university email. All the data will be stored on M drive and I will take special care of field notes and diaries which will not be discussed with anybody from outside.

Who is organising and funding the research?

This research is being organized by myself, Samyia Ambreen, under the supervision of Dr Jean Conteh and Dr Martin Wedell from the School of Education at the University of Leeds and is a self-funded project. If you wish to speak to me, please reply by email at edsam@leeds.ac.uk or phone me: 07552 742112. Otherwise you can also contact the head teacher in case of any query (*Head Teacher's name, title, and phone number*)

Thank you very much for reading this information sheet. I hope that your child will enjoy taking part in this project and thank you for your time and interest.

Informed Consent Protocol for the Parents of Pupils

Title of research project: Analysing pupils' interactions during their group work

1	I confirm that I have read and understand the information sheet explaining the above research project and I have had the opportunity to ask questions about the project.	
2	I understand that the participation of my child is voluntary and that I am free to withdraw him/her at any time without giving any reason and without there being any negative consequences.	
3	I understand that my child's responses will be kept strictly confidential. I give permission for members of the research team to have access to those anonymous responses. I understand that the name of my child will not be linked with the research materials, and I will not be identified or identifiable in the report or reports that result from the research.	
4	I agree for the data collected from my child to be used in future research	
5	I agree to take part in the above research project and will inform the head teacher and class teacher of my child.	

Name of the participant:

Name of the Researcher:

Signature: _____

Signature: _____

APPENDIX 05: INFORMATION AND ASSENT SHEET FOR PUPILS (SCHOOL OF EDUCATION)



Project Title: Analysing pupils' interactions during their group work

Investigator: Miss Samyia Ambreen

We are doing a research study about how you work in groups with other pupils in your classroom. If you decide that you want to be part of this study then you will be observed during your group work. You will also be asked to share your experiences of working in groups sometimes after the lessons. To understand your activities in detail, we would like to record your conversation during observation and interviews. If you feel uncomfortable you can ask us to turn the recorder off.

If you do not want to be in this research study, you can carry out your usual class work and we will make sure not to involve you in any observation or interview. When we are finished with this study we will write a report about what we have learned. This report will not include your name or that you were in the study.

You do not have to be in this study if you do not want to be. If you would like to stop after we begin, that's okay too. Your parents know about the study too.

If you decide you want to be in this study, please sign your name.

I, _____, want to be in this research study.

(Sign your name here)

(Date)

APPENDIX 06: PRE- OBSERVATIONAL GUIDELINE

Observer:	Date:	Time:
Context of the Class:		
Description about Group:		
Observations	Details:	Point to discuss in Interviews
Contribute in group work		
Listen to peers		
Respect others' opinions		
Follow instructions		
Accept responsibility for actions		
Remain on task		

Allows others to remain on task		
Explain, show and help others to learn the task		
Demonstrate positive and productive character traits (e.g. Kindness, patience , hard work)		

APPENDIX 07: MODEL OF OBSERVATION USED IN THE FIELD (AHSAN)

Date: 20-11-13

Time: 11:10-12:00

Field notes

It was literacy lesson and mixed ability group. The pupils were Banaras, Danial, Numen, Husnain, Arsalan and Hashem. Husnain was from high ability group while rest of them were from average ability group. At first, they were reading the friends and foe book for 20 minutes then they learnt about writing biographies. When class teacher asked the page number they had finished yesterday. Arsalan was the only one in the classroom who remembered that and said: page 102 so they started reading their book

It took them nearly 20 minutes to finish the book and discussing the story. The pupils were reading turn by turn. Arsalan also had a go and he read two paragraphs for the whole class.

11: 30

Now the class teacher explained to them to start writing the questions that they will address while writing the biography of John Lennon. They were continuing the previous lessons. The teacher has written a few headings on the board to help them in sketching the outline for their biographies for example, introduction, early life, education, career, Beatle and death etc. For this lesson they were looking for the questions about early life. The task was to discuss with peers in the groups and make questions to search information about his early life. Arsalan was mostly doing his questions by himself. At some points he asked class teacher about the question he came up with. First he made separate boxes to write questions in them? **(Field notes taken in dairy but later on typed in MS word)**

(The voice recorder was on)

Transcription 89

CT: quietly please which information you need to know

Ahsan: how many pupils did he have?

Danial (repeating Arsalan's question): how many pupils did he have?

Ahsan: we already asked this question

Danail: he has two pupils man

Ahsan: miss when did the band start?

CT: yeah! Well done what else?

Dainal: miss how many brothers did he have?

Hassan: are we writing about brothers as well

Numen: ohy (making sound)..... (Silence) how old is he? Looking at other faces

Ahsan asking to class teacher: what was his dream?

CT: yes, what was his dream when he was child?

Ahsan: repeating the information (what was his dream when he was little)

Danial: how many brothers and sisters?

Ahsan: miss which country was he born in?

Hassan: ohy..... Who killed him?

Taking from Hashem: yes, when did he die?

Ahsan: miss has he been to prison?

He was thinking and writing down more questions. He asked his class teacher about the questions before writing.

Ahsan: look at mine (asking Hashem)

Then he looked at the board and said: ah..... miss in which he was born? And who killed him (**Transcription of voice recorder**)

The four boys (Babar, Hassan, Daniel and Numen) started playing with numbers printed at the back of their sheets while the Hussain and Ahsan were doing their questions quietly and individually. (**Insertion of additional field notes written during the particular group work and later on added while matching the information of voice recorder and hand written notes**)

Danial: mine is 72

Hassan: mine is 40 no No 28

Danial: how many did you get

Numen: how many its 79.....

Danial: okay I'm reading and you have to answer how many exams are there? (they were discussing the numbers) ohy..... Why you shouted out I'm asking you the number (he asked Hassan)

Hussain: where did he live?

After hearing the peace from next table he said: who started peace

Class teacher rang the bell. Right I have written some heading on the board so you can write questions about when he was child or about when he joined Beatle (music band) you can write paragraph about his life, career and a paragraph about his death

Ahsan: miss how did he die?

CT: yes that is a question you will find out soon well what I am going to do is
Shhh..... listening..... I'm going to read out some information about him and
if you find the answer to your question or the questions you have to think of ...if you
hear any important information so I want you to write it down so right
..... listening

Then she started reading biography and Ahsan was writing the important information.

Danial: if he only met with one person than how did he make a band?

CT: John Lennon started a band which was Beatle and then some other people joined
and it was a band

Hashem: miss when did the band start?

CT: I already said that..... okay,listening..... I'm repeating
the information (then she read the rest of his biography).

APPENDIX 08: GUIDE FOR INTERVIEWING PUPILS IN PHASE ONE

Name of Participant:

Group Placement:

Age:

Class:

Settings:

Issues to be explored:

1. Do you know which group you are in?
2. What is it called? Why?
3. What happens when you work in groups?
4. Do you like and enjoy working in groups? Why?
5. Do you work with same group all time? Why?
6. Do you work with different groups during the lessons?
7. Do you like to work with different group? Why?
8. Do you like to work with your friends? For example: who would you like to be your partner?
9. Do you like to work in pairs or you like group work the most? Explain it please.....
10. What do you dislike about group work? Please say why?
11. Do you want to work alone/ individually?
12. How do you feel when you work alone during your lessons?

APPENDIX 09: MODIFIED GUIDE FOR INTERVIEWING PUPILS IN PHASE TWO

1. Group work in your classroom is effective or not?
2. Do you learn different skills from other group members?
3. How do learn from others in groups any example please?
4. Do you think working in groups is time consuming?
5. Why do you think so?
6. Can you solve the given problems while working with others?
7. How do you do it?
8. Do you discuss things with each other in groups?
9. What do you do in groups?
10. Can you easily share your ideas to each other?
11. In which group (fixed or mixed) you can do it easily?
12. Why do you think sharing ideas is easy in either fixed or mixed group?
13. Can you discuss the given topic in the group?
14. Is it helpful?
15. Why do you think so?
16. Do you enjoy group discussion?
17. Why do you think so?
18. Do you know all of your group members?
19. Would you like share anything about them. E.g. how are they?
20. What do you thinkhow they should be?

APPENDIX 10: MODEL OF PUPILS' INTERVIEW TRANSCRIPT

Date 6: 12: 13 Time: 2 45

Asking about his normal routine

He attends a community centre on Saturday where he visits the library and plays tennis

M: do you like school?

R: yes

M: why?

R: I like teachersThings and they have got fun stuff for us to do so

M: do you know which group you are in?

R: for what?

M: in class?

R: I'm on the highest table for everything but for maths I go to year 6 and I am in year 5

M: ok,

R: and for my parents evening they said that I'm good in year 6 and they are going to move me in year 7 work and year school

M: so you are in year 5 but you are doing year 7 work in maths

R: yes,

M: do you know why you are doing it?

R: I'm too clever. I don't understand you don't know what question is? Like how I don't know how you likeyou can't find out what 8times 8 is..... if you don't know then so I don't understand how you don't know the answer to do that I know its 64 but I don't know how people don't know this

M: ok

R: like one of you like how they feel they are working hard but I don't know how they feel

M: what do you mean when you said like some people are working hard and some people are clever?

R: yes and I think they are not clever

M: what do you do when you work in your group? Like you mention you work in year 6

R: we just do like we learned a method called, we renamed it like the bubble method cause it got a lot of bubble in it to find out what is Hhh (sound) like how to find

out so 65% of 30 so like how we find that out so we cross where we going the number 30 divided by ten and then divided by ten again so it will be 33 0.3 and then going down we half it so 30 15 and then 7.5 and some underneath 3 Thetimes ... h... divided by 10 so 0.3. so if I wanted to find out 5 % I will go until the 5% column so its 3 30 divided by like first I will do divided by 10 so that will be 50 no 3 and then half 3

M: so you work by your own when you sit in groups?

R: yes,

M: do you discuss with each other?

R: only if I'm stuck like if it's a talking one then I talk if I am stuck I ask the table first ... first I ask me then I ask my neighbour and then I ask all the table if they say I don't know then I will ask the person across the table

M: so do you work on same table or on different table?

R: only for maths I just there (pointing to year six's classroom) ... I am on highest... for literacy I am the highest table and for reading is should be on the highest table

Yeah I am on the highest table

M: so why you are calling it the highest table?

R: most.....cleverest table

M: how do you know like which table is cleverest? Does teacher tell you?

R: yeah like you are clever, you are just underneath clever, you are in the middle... you need to work hard ... you need to work a lot hard like how they say it they don't say they are stupid(talking about low achiever) they don't try them to [make them] feel disgrace come on you need to work hard . They put enthusiasm in them

M: so its depends on your classroom performances

R: yes,

M: is there something else you need to do... I mean does it depend on your classwork?

R: like if I don't like something I will say I don't like it but it's my opinion everybody has their own opinion so that's like if I say I don't like the shoes then you like them so you it's your opinion not mine

M: so the teacher decides who will sit on which table?

R: yeah Like if you are like on a table you need to work very hard ... but if you complain then it's your fault of getting the questions right in the test

M: yes, which tests?

R: the reading test. Reading test B

M: mmm, yes

R: Maths test, mental maths test, maths B but I don't do mental maths or maths test I just do the number 1 just [do] the most important one

M: and if you do really well then you can sit on highest table

R: yeah I'm on highest table there

M: do you enjoy table work?

R: yeah

M: anything you dislike about your table?

R: some of them are bit moody ... they are too moody like the partner will sit next to him like in my normal seats they just start like be with me and like you can't be with someone else something

M: mmmm

R: so they do me follow for good reasons then everybody in the class always says he is copying my work so that person there and I am there so that's why I just keep my answer to myself but when its test I will keep my answer to myself but when its type of classwork and we are learning then I will give them the answer because I am making them learn so it's fair and then everybody else will know the method

M: mmmm okay so do you work on same table always or you work on different table?

R: different tables

M: so how do you feel working on different tables? Is the same as working on your own table?

R: yeah there is one two three tables where I don't like ...like for literacy I do like that because I got my friend on there and then there are two more girls then they just start like mess around them and say give them the answer

M: ok

R: but I don't give them yeah if they can't find then I will give them the answer only for once not always. And then for my reading table that alright it's the same they start copying me they can't say they are just the purple table (low table)

M: do you like to work in pairs or working as whole table?

R: whatever is for the good mostly in pairs and mostly groups and pairs because you are having another partner, but groups then they are on that weakness and if I don't know so you can talk about so both

M: sometimes do you feel you should work alone?

R: sometimes not alwaysa bitbecause then its good thing for teachers because they can't just all the time come to me what's this and what's thatthey can't always come to me we got a little one in year 4 he always come to me but he

tries so hard that's why I give them the answer but if I say no or I can't be bother then if he tries so hard and I can see on his face then his then I will just give them the answers

M: mmm

R: okay not only answer I will give them the methods how to do it and then

M: means you will teach them what to do while working in group?

R: yeah and then they just..... I am so like attractive to them that they always come to me is this right ... is this right is this wrong.....is this right

M: why do you think you are so attractive to them? Any idea

R: I always help them

M: yes, perhaps they know they can come to you and then they can learn

R: Yeah

M: does it make you feel happy?

R: yeah

M: that's good, so how do you feel when you work alone?

R: just a tiny tiny really bit lonely...but

M: mmmmmmm yeah

R: but I don't mind working by myself then it's nice and peaceful than I'm ready and then if it's loud then I can't work with them just sitting somewhere quietly but a lot of them try to do distract then

M: okay, so what do you mean by peaceful?

R: nice and quiet and calm, like if it's too loud then won't be able to do it .so I will put my hand and tell them that its bit louder and then will say keep the voice down cause we can't work and then it's not just me its more people are sitting on that place who don't like too

M: if you are grouped with someone naughty as you said then what will you do?

R: just tell him just you have got a chance, I will say now let me do what are we doing I will just look at them if they know it but they just don't know I will keep answer in my head and tell teacher that look at that person they are not letting me to do my work .. I don't do it always but if someone does naught things then I will do

M: do you know about your levels?

R: yeah I got 4a in maths, 4b in reading

M: mmm

R: 4b in writing

M: okay, so how do you know about your levels?

R: parents evening we just had like Tuesday

M: okay, so you got your new levels

R: yeah and then they just say don't write curly wriggly We did World War 2 and now I'm just writing with no style and then if I am doing like a poster then I have to write normal you can't do other stuff

M: mm so do your parents know your level?

R: yeah. They ask me every day after school when I go home what did you learn at school how was it? And they are happy with my levels

M: what do you think how good levels can help you in your life?

R: hhhhh just so then I will get good job and will be easier for me yeah and then it will be easier for me like to have a good job they say we need c but when I am older I would like to have b or a . But I'm not pushing myself if I get b or c I am happy if I get a I'm not gonna [going to] brag about it and saying oh you got c and I got a

M: good okay ...lets finish our interview (interview was finished and we headed back to class during the way he kept talking about his levels and other pupil's levels)

APPENDIX 11: GUIDE FOR INTERVIEWING THE CLASS TEACHER

The discussions involved an explanation about pupils who were observed in the first phase of the data collection. I asked her questions:

- What kinds of groups do you organize in your classroom?
- How do you group them in fixed (low, average and low) ability groups?
- What procedures do you use to evaluate pupils' progress?
- Do you use cooperative group based activities in your classrooms?
- What are the challenges in organising such activities, if any?
- Are you free to apply flexible grouping? What sort of difficulties do you face while implementing group work in your classroom?
- What do your colleagues say about group work? Do you discuss your class activities with them? (was taken on at: 17-12-13 Time 3:30)

The second interview

The discussions included points related to pupils' interactions and behaviour specifically, which were observed during their group work in the second phase of data collection. She asked me to reflect on my observational notes briefly. Therefore I summarised my findings and explored her perspectives.

- What will you say about the behaviour of pupils during group work? The pupils from high ability group did not prefer to work with others, what's your point of view on it?
- What do you think about the group's skills of your pupils generally?
- I noticed pupils exhibited gender biased attitudes, how do you feel and what will you say about it?
- What do you think about the role of parents, do they ask you or interfere in what's going on in the classroom?
- How do you think it can be improved?
- How will you describe the conditions of group work in your classroom? (The response was not satisfactory so I continued the debate on improving group work)
- Have you ever tried to improve the conditions?

- What do you think about behavioural and competitive atmosphere in your classroom? Does it happen only in this classroom or in other classes? Have you ever talked about this with your colleagues?
- What is your thinking about the activities that we used a couple of times, do you think you are able to use them in literacy and numeracy lesson generally? (In response she complained about negative attitudes of her pupils due to which I explored about the challenges)
- What do you feel the other challenges are for implementing such an environment into your classroom? (Taken on 7/7/2014 at 3:30)

Third Informal Discussion

The third interview was a brief informal discussion in which I asked her about her perspectives of participating in my research project, such as:

- How would you describe your participation in my research project?
- What is your thinking on how it can help the teacher?
- Have you noticed any negative aspects? Was there any element that you did not like in terms of procedures of data collection? (We discussed the observer's effects and then I involved a few questions about the pupils, as they asked me about field notes, particularly the recorder and research diary)
[Taken in September, 2015, at 11:00]

APPENDIX 12: INFORMATION ABOUT PARTICIPANTS (PUPILS WHO WERE CHOSEN FOR OBSERVATIONS AND INTERVIEWS)

Information about participants selected for observations and interviews during the both phases of data generation. The information was recorded in the form of field notes while consulting the pupils' learning log during field work. The class teacher was also asked to reflect on the group working skills of the chosen participants at the end of first phase of data collection, such as:

Rafique

Rafique was from the high ability group with 4a in Maths and 4b in English. He mentioned football, design, technology, sports, art, music, architecture, solving fights, styling hair and modelling as his strengths in his learning log. Rafique was interested in playing Rugby. He wanted to become a solicitor or engineer. His behavioural record was excellent with not a signal red or yellow card.

“The problem with Rafique (pseudonym) is that he thinks that he is always right so that means he doesn't want to share his answers. He thinks obviously highly of himself and his abilities, and thinks that everybody always copies him so sometimes it means his group work isn't amazing particular ... He also likes to take control and he wants to do everything and in group work you can't do everything he struggles to let someone else to take over something” (class teacher)

Sumaira

Sumaira was from the high ability group with 4c in both Maths and English. Sumaira mentioned being a good friend, cooking, decorating, art, Maths, English, history, science, asking questions and drawing as her strengths in her learning log book. Sumaira wanted to be a lawyer. Occasionally, she was given verbal warnings to improve her behaviour. She reflected on her performance that “I have achieved a goal. The goal was to improve my reading, writing and maths and I did it. I have to stay good to be green” (Learning Log)

“Sumaira (pseudonym) is really good in contributing especially, not much in Maths because cause she hasn't got enough confidence but I think getting a 4c is really boosting her confidence now but in literacy and in topic work Sumaira is always willing to contribute to the group. In terms of working together she is quite I mean she is very nice child

you know she helps people and you know she is a kind girl ... I just think in general as a class ... team work skills quite there as much as I can see in other children” (class teacher)

Isma

Isma was from the average ability group with 3b in Maths and 3c in English. She wanted to be an artist. In her learning log, Isma mentioned that likes Art, cooking, decorating buns, rainbow cake and book reading. I have got better writing. I don't get into trouble like last year. I got bit better in maths and concentrating.” Sometimes, Isma was told off by her class teacher for not behaving respectfully towards her peers. She mentioned “Team work” as her future target to be achieved.

“she doesn't like boys and she doesn't really contribute she doesn't ... really put forward the ideas maths sometimes she hands up for an answer in terms of what she thinks about something she is not really willing to say about that . she is willing to say answer if she knows it is correct for example, what 2 add 2 is she knows its 4 she will put her hand up and answer it but she won't willing to put forward in her opinion” class teacher

Ahsan

Ahsan from the average ability group with 3a in Maths and 3b in English. He wanted to be an artist. Ahsan mentioned “My hand writing is improved. My football skills are improved” in his learning log, while reflecting on his achieved target. He didn't mention any weakness as his future target. Overall, his behaviour was good.

“He is ... he can You can say ... yeah someone has to kind of drag [him] out he s got tendency to slip down ... but he is very thoughtful he has got good mind... Good head on his shoulders. You need to drag the good stuff out of [him]” (class teacher)

Farkhanda

Farkhanda was from the low ability group with 2b in Maths and 2c in English. She wanted to be a nail artist. She likes literacy, art, cricket, numeracy and football. In her learning log, Farkhanda mentioned “I like art because I like to draw and I love cricket because I do at home”. In her future target she stated “I want to improve my timetables, reading, science and focus”.

“It depends, sometimes she can come out with something really good ... wow, that is come from her ... quite far often ...hfff other time she is getting some silly arguments or something odd.... depends what mood Farkhanda (pseudonym) in she got kind of attitude... she is very much willing to put something forward or work in a group . if she is not in that mood she feels like she needs adult help she wants more us to participate she wants someone to sit with her and talk through it”
(class teacher)

Danial

Danial was from the low ability group with 2c in Maths and 2b in English. Danial did not mention any likes as in his learning log he mentioned “never decided yet”. He also reflected on his target achievement “I can’t do a lot of Art and I am proud. I can go writing and reading even if I have to do and I am proud. I just like this”.

Well, Danial (pseudonym) is very much about himself he is not really like to group work. He likes to work on his own I think that why he doesn’t like to be on that table because on that table because Mr John (pseudonym) and they work as whole group as they.... have to participate and listen..... He is like just go off his own. Unfortunately, the thing is he is not at a stage where he can go on his own. He cannot go on his own and needs my assurance every time”
(class teacher)

APPENDIX 13: ETHICAL APPROVAL FORM APPROVED BY THE ETHICAL COMMITTEE UNIVERSITY OF LEEDS

Performance, Governance and Operations
Research & Innovation Service
Charles Thackrah Building
101 Clarendon Road
Leeds LS2 9LJ Tel: 0113 343 4873
Email: ResearchEthics@leeds.ac.uk



UNIVERSITY OF LEEDS

Samyia Ambreen
School of Education
University of Leeds
Leeds, LS2 9JT

ESSL, Environment and LUBS (AREA) Faculty Research Ethics Committee

University of Leeds

19 August 2013

Dear Samyia

Title of study: Social interaction and collaboration among primary school children

Ethics reference: AREA 12-128, response 3

I am pleased to inform you that the above research application has been reviewed by the ESSL, Environment and LUBS (AREA) Faculty Research Ethics Committee and following receipt of your response to the Committee's comments, I can confirm a favourable ethical opinion as of the date of this letter. The following documentation was considered:

Document	Version	Date
AREA 12-128 Summary of Required Responses2.docx	1	25/07/13
AREA 12-128 Summary of Required Responses.docx	1	19/07/13
AREA 12-128 Ethical_Review_Form_V3[1].doc	2	21/06/13
AREA 12-128 Fieldwork_Risk_Assessment_docx_samyia[1].docx	1	21/06/13
AREA 12-128 information sheets.docx	3	13/08/13

Please notify the committee if you intend to make any amendments to the original research as submitted at date of this approval, including changes to recruitment methodology. All changes must receive ethical approval prior to implementation. The amendment form is available at <http://ris.leeds.ac.uk/EthicsAmendment>.

Please note: You are expected to keep a record of all your approved documentation, as well as documents such as sample consent forms, and other documents relating to the study. This should be kept in your study file, which should be readily available for audit purposes. You will be given a two week notice period if your project is to be audited. There is a checklist listing examples of documents to be kept which is available at <http://ris.leeds.ac.uk/EthicsAudits>.

We welcome feedback on your experience of the ethical review process and suggestions for improvement. Please email any comments to ResearchEthics@leeds.ac.uk.

Yours sincerely

Jennifer Blaikie

Senior Research Ethics Administrator, Research & Innovation Service

On behalf of Dr Andrew Evans, Chair, [AREA Faculty Research Ethics Committee](#)

CC: Student's supervisor(s)