

Open Research Online

The Open University's repository of research publications and other research outputs

Unexplored Areas of Teacher Collaboration: Evidence from a Bangladeshi Rural Primary school

Thesis

How to cite:

Rahman, Md Shajedur (2020). Unexplored Areas of Teacher Collaboration: Evidence from a Bangladeshi Rural Primary school. PhD thesis The Open University.

For guidance on citations see [FAQs](#).

© 2020 Md Shajedur Rahman



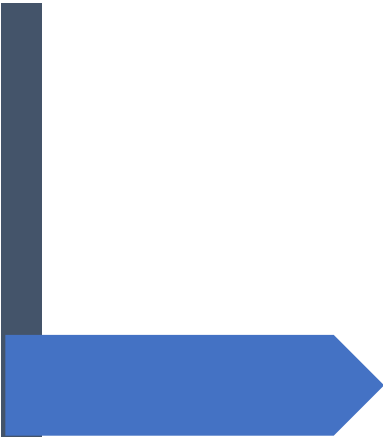
<https://creativecommons.org/licenses/by-nc-nd/4.0/>

Version: Version of Record

Link(s) to article on publisher's website:
<http://dx.doi.org/doi:10.21954/ou.ro.0001208f>

Copyright and Moral Rights for the articles on this site are retained by the individual authors and/or other copyright owners. For more information on Open Research Online's data [policy](#) on reuse of materials please consult the policies page.

oro.open.ac.uk



**Unexplored areas of teacher collaboration: evidence
from a Bangladeshi rural primary school**

Md Shajedur Rahman

MA Primary Education (Policy and Practice), Institute of Education, University College
London, UK

MEd Curriculum and Instructional Technology, University of Dhaka, Bangladesh

BEd Science, Maths and Technology Education, University of Dhaka, Bangladesh



Thesis Submitted to The Open University in partial fulfilment of the requirement
of the degree of Doctor of Philosophy

Centre for Research in Education and Education Technology (CREET)
The Open University

March_ 2020

Declaration

I declare that this thesis represents my own work, except where due acknowledgment is made, and that it has not been previously submitted to the Open University or to any other institution for a degree, diploma or other qualification.

Unexplored areas of teacher collaboration: evidence from a Bangladeshi rural primary school

Abstract

This study investigated how teachers in a rural primary school in Bangladesh understood collaboration, how it was exercised in a daily routine context and the factors that influenced their collaborative activities in a school setting. Teachers' collaboration in such a Low- and Middle-Income Country (LMIC) context is underexplored. Moreover, collaborative professional development is a policy imperative in this country, and it was assumed that findings of this study may inform teachers, policymakers and teacher educators when designing and implementing School Based Teacher Development (SBTD) programmes.

A Critical Realist (CR) philosophy was adopted which calls for an understanding of the deep social structure and human agency to understand a social event. It allowed an in-depth understanding of the social context of the school and the agency of the teachers. An ethnographic approach adopted in this study helped to obtain authentic data about teachers' day-to-day collaborative practice in the school context.

A range of data collection methods including the audio recording of staffroom conversations, participant observations and interviews was undertaken for two months. A thematic analysis of the data showed that teachers understood collaboration as a matter of their day-to-day activities, which are not restricted to formal professional works but also include a range of informal, professional, social and emotional activities. Teachers were involved in planned and unplanned collaboration with the majority of them being unplanned social conversations. Yet, the collaborative activities seemed to have little impact on teachers' professional development. Teachers' understanding of collaboration and the nature of their collaborative activities were very much shaped by the wider culture and organisational norms and regulations. This study concluded that teachers need to be supported to use the

collaborative spaces for their professional development. Further research is needed to identify the way teachers can be supported to utilise their collaboration.

Acknowledgements

I would like to express my deepest thanks to my supervisors, Dr Ian Eyres, Ms Kimberly Safford, Mr Tom Power and Dr Lore Gallastegi for their enormous support, encouragement and for all their careful reading. The support I received from them during my academic and personal difficult times, is unforgettable. I cannot express my gratitude enough to you all. I thank you.

I am thankful to all the participants, of this study who treated me as one of them during my data collection and became open to me in their professional practice. I must convey my thanks to the educational administrators in Bangladesh who have kindly given permission to enter the school, spend time there and collect data for this study.

The feedback I received from my two examiners of my probation viva, Dr Clare Susan Lee and Ms Clare Woodward was highly helpful. I must thank them. I am grateful to Dr Jacki Tuck for her professional and emotional support throughout my PhD.

I thank all my EIA colleagues at the OU, especially Ms Claire Hedges from the International Development Office, for their warm and friendly support from the early stage of my life in Milton Keynes for the purpose of this study.

My warm thanks to my PhD colleagues, Raktim Roy, Dame Diop, Jiniya Afroz and Linda Plowright in particular for their support and friendship.

I am indebted to my parents Mrs Shirin Rahman, Md Abdur Rahman, and brothers Md Shahanur Rahman and Md Sahariar Rahman for their support. The presence and support of my lovely wife Naznin Akter were indispensable for this PhD. I also owe a debt to my two-year-old son, Samin, who helped me overcome my tiredness by welcoming me with his precious smile at the end of the day when I went home. I dedicate this thesis to him. Finally, I would like to thank the Open University for funding my PhD and making this project possible.

Contents

Declaration.....	ii
Abstract.....	iii
Acknowledgements.....	v
List of Figures.....	ix
List of Tables.....	ix
Chapter One Introduction.....	1
1.1 Introduction.....	1
1.2 Rationale for this study.....	2
1.2.1 Contextual reasons.....	2
1.2.2 Professional and academic motivation.....	6
1.3 Research aims and questions.....	8
1.4 Structure of the thesis.....	9
Chapter Two Bangladesh: The context of the study.....	11
2.1 Introduction.....	11
2.2 The history and culture of Bangladesh and their effects on education.....	11
2.3 The primary education system and major reforms.....	14
2.4 Why Bangladesh for this study?.....	18
2.5 The school.....	20
2.6 Chapter Summary.....	26
Chapter Three- Literature review.....	27
3.1 Introduction.....	27
3.2 A comprehensive review of literature.....	27
3.3 Conceptualising teachers' collaboration.....	29
3.4 A thematic analysis of existing studies in teacher collaboration.....	34
3.4.1 Teachers' perception of collaboration.....	37
3.4.2 Impact of teachers' collaboration.....	39
3.4.3 Environments of collaboration.....	52
3.4.4 Nature of Collaboration.....	59
3.5 Critical reflection on the literature.....	65
3.6 Chapter summary and guiding ideas for this study.....	71
Chapter Four- Theoretical lenses.....	72
4.1 Introduction.....	72
4.2 Situated learning, community of practice.....	72
4.3 Habitus, social capital, power.....	78
4.4 Affordance.....	81

4.5 Chapter Summary	83
Chapter Five – Methodology	84
5.1 Introduction.....	84
5.2 Ontological and Epistemological Standpoints	84
5.2.1 Ontological standpoint: Critical Realism	85
5.2.2 Epistemological aspect: Ethnography.....	91
5.2.3 Scope of data collection: Why a single school?	94
5.2.4 My positionality in the field as an ethnographer.....	96
5.3 Methods of data collection.....	112
5.3.1 Observations	116
5.3.2 Headteacher interview	118
5.3.3 Teacher interview	118
5.3.4 Staffroom discussion.....	119
5.4 Approach to analysis.....	119
5.5 Ethical aspects.....	129
5.6 Chapter Summary	131
Chapter Six: Findings - Perception and nature of teachers’ collaboration.....	134
6.1 Introduction.....	134
6.2 Teachers’ perceptions of collaboration	135
6.2.1 What teachers mean by collaboration.....	135
6.2.2 Perceived importance of collaboration	141
6.2.3 Perceptions about the processes of collaboration: why, with whom, and where and when	145
6.3 Nature of collaboration	152
6.3.1 Planned collaboration	153
6.3.2 Unplanned collaboration	165
6.4 Chapter Summary	190
Chapter Seven: Findings – Factors influencing teachers’ collaboration.....	194
7.1 Introduction.....	194
7.2 Influence of wider cultural factors on teachers’ collaboration:	195
7.2.1 Sense of Hierarchy	195
7.2.2 Social construction of gender	201
7.2.3 Social Cohesion	204
7.3 Organisational level factors	207
7.3.1 Workplace environment	207
7.3.2 Local and national support for teachers	210
7.4 Teachers’ personal experience.....	213
7.5 Chapter Summary	215
Chapter Eight- Discussion	217

8.1 Introduction.....	217
8.2 A teachers’ perspective of collaboration.....	218
8.3 Teachers’ community and CoP	226
8.3.1 Domains	229
8.3.2 The community	236
8.3.3 Practice.....	238
8.3.4 Symbolic capital and collaboration	240
8.4 Culture and collaboration.....	241
8.4.1 Power distance.....	243
8.4.2 Uncertainty avoidance	245
8.4.3 Individualism vs. collectivism.....	246
8.4.4 Masculinity vs. femininity	248
8.5 Understanding teachers’ collaboration in a critical realist ontology	251
8.6 Chapter Summary	254
Chapter Nine: Conclusion.....	256
9.1 Introduction.....	256
9.2 Summary of the study	256
9.3 Key findings.....	258
9.4 Limitations of this study	262
9.5 Implications.....	263
9.6 Chapter summary and final remark.....	265
Bibliography	268
Appendix A: Project Registration and Risk Checklist.....	282
Appendix B: Memorandum from the ethics committee.....	288
Appendix C: Information pack for participants	289
Appendix D: Teachers’ consent form	293
Appendix E: Teachers’ consent form (Bangla).....	294
Appendix F: School consent form (Bangla)	297
Appendix G: Headteacher interview schedule.....	300
Appendix H: Teacher interview schedule.....	301
Appendix I: School Observation Schedule	303
Appendix J: Structure of the project and audio files uploaded onto NVivo	305
Appendix K: Initial codes and themes	306

List of Figures

Figure 1: Increasing interest in teacher collaboration research	28
Figure 2: Learning through peripheral participation	75
Figure 3: An iceberg model of Critical Realism adapted from Fletcher (2017).....	88
Figure 4: Relationship between the theories and research questions	90
Figure 5: Researcher's positionality (Adapted from Chavez, 2008).....	92
Figure 6: Conceptualising insider/outsider positionality	104
Figure 7: Laminated learning in this study, adapted from Tikly (2015)	121
Figure 8: Codes developed during literature review	125
Figure 9: Example of a code	126
Figure 10: Example of process of theme creation	127
Figure 11: Perceived factors that influence teachers' collaboration.....	148
Figure 12: A lesson plan	186
Figure 13: Overlapped professional and social domains of teachers	234

List of Tables

Table 1: Demography of the area where the studied school located in.....	21
Table 2: Teachers' demography	23
Table 3: Research in school-based teacher collaboration between 2011 and 2019	36
Table 4: Concepts of situated learning theory and their relationship with the current study	77
Table 5: Concepts of habitus and their relationship with the current study	80
Table 6: Theory of affordance and its relationship with the current study	82
Table 7: The effects of the researcher's positionality on data	106
Table 8: The effect of researcher's positionality and the strategies to minimise the effect	111
Table 9: Summary of data.....	123
Table 10: A sample of transcription of the audio data (Staffroom conversation on 17/10/18).....	124
Table 11: Presentation of research question - 1.....	135
Table 12: Presentation of research question - 2.....	135
Table 13: Types and frequencies of emotional conversation	167
Table 14: Relationship between cultural dimension and teachers' collaboration	250

Chapter One Introduction

1.1 Introduction

While teachers' collaboration is considered to be a supportive practice to their professional development (Westbrook et al., 2013), school improvement and students' achievement (Muijs and Harris 2006, Goddard et al. 2007), there is little research to understand teachers' own perspectives of collaboration and the day-to-day collaborative activities teachers perform in a school context. Furthermore, it would seem to be important to understand the existing collaborative culture in a school context in order to design and implement School-Based Teacher Development (SBTD) models that adopt a collaborative approach, because knowledge of existing practices may help to utilise these for professional development. This thesis reports on an investigation that explores the nature of teachers' collaboration in a Bangladeshi primary school. It attempts to understand teachers' perceptions of collaboration, the way they collaborate in their day-to-day life, and the factors that influence their collaborative practice. In doing so, this study adopted an ethnographic approach.

Bangladesh, a Low- and Middle-Income Country (LMIC) in South Asia, was chosen as the site for this study because teachers' collaboration in such a context is underexplored. Moreover, teachers' collaborative professional development is a policy imperative in Bangladesh. Recent reforms in the Bangladeshi education system advocate school-based collaborative learning for teachers. For example, in the primary sector, 'Needs Based Sub-Cluster Meeting' is predicated upon teachers working together to help improve knowledge and practice in relation to particular needs they have identified locally.

Hence, an assumption of this study was that an exploration of existing collaborative practice would be helpful for developing and improving school-based continuous professional development based on the idea of collaborative learning. In addition, the

particular cultural context, where teachers have strong social cohesion, was suitable to analyse the role of interpersonal relationships in collaboration.

In this introductory chapter, section 1.2 provides the rationale for this study, describing the contextual rationale as well as my professional and academic experiences that helped me to develop an interest in this topic. Section 1.3 presents the research aims, scope and questions. A chapter-by-chapter brief outline of the structure of the thesis is described in section 1.4.

1.2 Rationale for this study

My interest in the area of teacher collaboration developed in two ways. First, the current situation and recent developments in the Bangladeshi primary education sector urged policy makers to focus on teacher education. In the current situation of the primary education sector in Bangladesh, teacher education is important. Teachers are considered to be key to the quality of education, and all potential and effective ways of teacher development need to be utilised to satisfy the continuous professional development needs of a large number of new and experienced teachers. Literature suggests that self- and co-learning are significant ways to satisfy this need (Avalos, 2011; S. H. Rahman, 2011; Westbrook et al., 2013). Secondly, my academic and professional experiences in the area of teacher development motivated me to explore the nature of teacher collaboration in Bangladeshi schools. The following sections illustrate how the contextual scenario and my experiences rationalised this current study.

1.2.1 Contextual reasons

Since its birth in 1971, Bangladesh has established one of the most centralised primary education systems in the world. It caters for around 20 million students and has half a million teachers (Bangladesh Bureau of Educational Information and Statistics, 2015). Yet, as of 2011, 58 percent of Bangladesh's teachers were unqualified (UNESCO, 2014). Bangladesh introduced free and compulsory primary education in 1991. Since then, it has

achieved remarkable progress in ensuring access to education for its young people. The gross and net enrolment ratio are 109 percent¹ and 97 percent respectively (Bangladesh Bureau of Educational Information and Statistics, 2015). The dropout rate by the end of primary school has been reduced from 50 percent in 2006 to 20 percent in 2015.

This situation has motivated the Bangladeshi government to move the focus from the problem of access to the issue of quality in primary education. Teachers are considered to be key agents in ensuring the quality of education (Boissiere, 2004; Glewwe & Kremer, 2006). The first national education policy of Bangladesh stated that the main force to drive educational quality is ‘a team’ of properly qualified, skilled and committed teachers (Ministry of Education 2010 p.VI). The word ‘team’ in the narration of the national education policy signals that the government seeks teachers to work collaboratively to enhance the quality of education in the country.

It is noted in the policy that a transparent recruitment system and high-quality teacher education are crucial for ensuring the quality of teachers (Ministry of Education, 2010). The policy also emphasised that a school-based and demand (by teachers)-led teacher training system is necessary for developing the professional excellence of teachers, instead of the existing top-down cascade model of teacher education. The policy acknowledges that the existing teacher training system is based on rote learning, far short of demand, certificate-based (valuing certification more than learning), overly loaded with theoretical knowledge and unable to ensure practical learning (ibid. p.57).

In such a situation, identifying more effective approaches to teacher development with practical impacts on teaching and learning is imperative for Bangladesh and all around the world, as discussed in Power (2019). School-based approaches to teacher development are increasingly a focus of interest in international teacher development policies (DfID, 2018).

¹ Gross Enrolment Ratio = Number of children enrolled in a level (primary or secondary), regardless of age divided by the population of the age group that officially corresponds to the same level, therefore the percentage can be more than 100.

DfID has indicated that effective Continuous Professional Development (CPD) programmes, which provided evidence of positive impact on classroom practice or learning outcomes, emphasised teachers learning ‘on the job’ in classrooms or schools, rather than undertaking training away from the site of teaching and learning.

In Bangladesh too, school-based teacher professional development (TPD) is being considered as an effective alternative to the traditional approach of teacher education where teachers are taken out of school for training or upgrading (Power, 2019). A recently developed Teacher Education Development (TED) plan by the central body of primary education in Bangladesh, the Directorate of Primary Education (DPE) has also acknowledged the need for a school-based TPD approach (Directorate of Primary Education, 2015). The TED plan has recommended decentralised, local and context-based teacher training through ‘sub-cluster meetings’ at a local level. Since the early 1990s, sub-cluster meetings have been organised and facilitated by government education officials locally every three months, where teachers from four to five schools (20-25 teachers) gather together for information dissemination, in-service professional development and school-to-school collaboration (J. Mullick, Deppeler, & Sharma, 2012). However, sub-cluster meetings are not purely school-based as the most of the teachers attend the meeting outside of their school. Moreover, due to lack of sufficient infrastructure, such cluster meetings are often interrupted (Latif, 2005). Additionally, from my professional experience (I have attended a number of sub-cluster meetings as a guest) the meetings mostly address administrative issues rather than pedagogical problems.

Other teacher training projects such as the Teacher Support Network (TSN) (Directorate of Primary Education, 2015) and English in Action (EIA) (C. Walsh et al., 2012) have also promoted context-based in-school teacher development. In contrast to a sub-cluster meeting, TSN adopts a Japanese ‘lesson study’ model (Akiba, Murata, Howard, & Wilkinson, 2019) in schools (Directorate of Primary Education, 2015). In a lesson study

event, teachers in a school meet once a week and a teacher demonstrates a lesson and others reflect on it. English in Action (EIA) a nine-year (2008-2017) English teacher development project funded by UK DfID, also promoted peer support among teachers in schools (C. Walsh et al., 2012). Two teachers and the headteacher from each selected school participated in the programme so that they supported each other in their schools to implement new teaching approaches introduced by the programme. Both of these initiatives adopted the idea of collaborative learning.

Teachers' in-school collaborative learning in informal groups, formal clusters, or pairs of teachers at schools can be important in a developing country, since such learning can be grounded in the context (Westbrook et al., 2013) and is considered cost-effective for effective CPD (Avalos, 2011). Yet, there is a paucity of research that reveals the nature of formal and informal teacher collaboration in a school context, especially in Low- and Middle-Income Countries (LMICs). What teachers perceive about collaboration and how their socio-economic and cultural factors shape their day-to-day collaborative practices are under-researched areas.

It is important to understand teachers' perception of collaboration because perception is a significant factor that contributes to the decisions a person makes (Bandura, 1986; Dewey, 1933). There is much research suggesting that teachers' perceptions affect their decision-making and behaviour in the classroom (Ashton, 1990; Ashton & Webb, 1986; Brookhart & Freeman, 1992; Buchmann, 1984; Clark, 1988; Dinham & Stritter, 1986; Feiman-Nemser & Floden, 1984). Moreover, teachers' perceptions reflect their agency, which is crucial to understanding human behaviour in a society (Bhaskar, 2013).

Although a number of Teacher Professional Development (TPD) programmes across the world, such as Activity Based Learning (ABL) in Ghana, Public Education for Disadvantaged Children in Cambodia (Coffey International Development, 2012), and English in Action (EIA) in Bangladesh (C. S. Walsh et al., 2012), have adopted the concept

of collaboration and school-based collective development, how such concepts are manifested or not in particular contexts and whether those manifestations reflect the teachers' understandings of collaboration is still unknown. Hence, this study was a response to this gap in our knowledge, seeking to understand how the concept of collaboration was understood and practised by teachers in a Bangladeshi primary school.

1.2.2 Professional and academic motivation

My interest in the area of teacher education started to develop during my undergraduate and post-graduate education studies in Bangladesh and the UK. I studied for a Bachelor of Education (BEd) in science, mathematics and technology education, and a Masters of Education (MEd) in curriculum and instructional technology, at Dhaka University Bangladesh. The BEd and MEd provided knowledge and skills about the education system and teaching and research in education sector. I wanted to be in academia and teach, research and influence policies in education. Hence, later, I studied for an MA in Primary Education (Policy and Practice) at the Institute of Education, University of London. During my B.Ed, I worked as a trainee teacher in a school in Bangladesh. I talked to teachers and observed their teaching whenever I had the opportunity. These experiences motivated me to think about teachers' journeys.

My interest in teachers' lives increased when I started to work as a senior Research, Monitoring and Evaluation (RME) officer in English in Action (EIA), a large-scale teacher development programme in Bangladesh that adopted a TPD model, where the teachers learnt collaboratively by carrying out new classroom activities, being guided by teacher development videos and supported by classroom audio (C. S. Walsh et al., 2012).

As an RME officer, I conducted numerous classroom observations and interviewed teachers on their experience of using the techniques they learnt from the EIA training. A significant focus of teacher interviews was on their experience of support from the head teacher and partner teacher. For monitoring purposes, the programme collected data

quarterly from thousands of teachers across the country about their experiences. One of the findings in particular from a quantitative analysis of the data drew my attention. In almost every quarter, nearly all the teachers reported ‘peer support’ as very important for their development. However, comparatively, a very small proportion suggested that they performed the peer support activities recommended weekly by EIA. This discrepancy prompted me to focus on this issue, and I carried out a study (M. S. Rahman, 2019) that highlighted the gap between the perceived importance of peer support and actual frequency of collaborative activities. That study (M. S. Rahman, 2019) sought to unpack the qualitative meaning of ‘important’ and the reasons behind the discrepancy between perception and practice. Results from the study showed that teachers feel peer support is helpful for their professional development and relationships among colleagues. The results also showed that, along with occasional practice of the prescribed (by TPD programmes, the monitoring body and the headteacher) peer activities, there are rich conversations amongst teachers that include matters about administrative tasks, social interactions and professional development. The study found that there are organisational and wider cultural aspects that influence those activities and conversations.

These findings provoked me to explore this phenomenon further, in order to understand teachers’ perspectives of peer support, their day-to-day collaborative activities and the wider socio-cultural aspects that influence peer activities. The proposal to investigate these issues was accepted for a doctoral research project by the Centre for Research in Education and Educational Technologies (CREET) of the Open University (OU), UK.

After reading in this area during my first year as a PhD student and a preliminary field visit, I understood that peer-support is a very specific area of what teachers do together. To capture the wider understanding of teachers’ co-work and co-learning, I decided, on reflection, that the word ‘collaboration’ is more appropriate than ‘peer support’. Hence, my research title became ‘Unexplored Areas of Teacher Collaboration: evidence from a

Bangladeshi rural primary school'. The aims, objectives and research questions are described in the following section.

1.3 Research aims and questions

This study attempted to understand the way teachers in a Bangladeshi primary school understand collaboration, perform their day-to-day collaborative practices, and how these perceptions and practices are shaped. The study sought to answer the following research questions:

1. How is the concept of collaboration understood by teachers in a rural school in Bangladesh?
2. What is the nature of existing collaborative activities in the wider school context?
3. How do the factors related to teacher agency and social structure shape teachers' understanding and practice of collaboration?

The first research question explored how collaboration is understood by the teachers in the school where the study takes place. The second question aimed to identify the nature of collaborative activities teachers perform in their day-to-day professional lives. The final question sought to understand the respective roles of social structure and teacher agency in shaping teachers' collaborative activities.

To answer these questions, an in-depth understanding of the context was imperative. Thus, an extended stay in the research site was necessary, and an ethnographic approach was taken. This approach had three main features: Teachers' day-to-day activities were observed; they were interviewed on their understandings of collaboration and their day-to-day collaborative practices; and some of the staffroom conversations of teachers were recorded.

1.4 Structure of the thesis

This thesis consists of nine chapters. In this introductory chapter, the rationale of this research has been provided by discussing how the context and my academic and professional experiences motivated me to conduct this study. The research aims and questions have also been included. In Chapter 2, the context of this research is described. The chapter describes how the history and culture of the country have influenced the educational context. The political and economic history and socio-cultural norms and values are taken into account to see how the context of education changed over time. Then this chapter narrows its focus and concentrates on the primary education sector of Bangladesh. The existing structure of and the major reforms in this sector are described to provide the rationale for selecting this context.

Chapter 3 is dedicated to summarising the available research in English in the area of teacher collaboration. A systematic literature review is carried out to understand the development of the key concepts and the issues and debates in this area. The first section of the third chapter provides the process of the literature review. Then it defines the concept of teacher collaboration in light of existing scholarly writings. The following section discusses the existing studies in the area of teachers' collaboration and then a critical appraisal of the literature is provided.

Chapter 4 describes the theoretical framework that underpinned this study. It considers situated learning theory and the concept of a community of practice (CoP) within this theory (Lave and Wenger 1991), the concept of symbolic capital (Bourdieu, 2011b) and the theory of affordance (Gibson, 1986) to understand and explain teachers' behaviour.

Chapter 5 presents the methodology of this study. This chapter starts with the explanation of the ontological and epistemological standpoints adopted in this study. This study has adopted a Critical Realist (CR) ontological position and an ethnographic approach to data collection. The researcher's positionality is explained. The following section discusses the

practical methods for data collection. The next two sections illustrate the approach to the analysis of the data and the ethical considerations for this research.

Chapter 6 and 7 present the findings from this study. Chapter 6 deals with the first and second research questions. First, it examines the ways in which teachers perceive 'collaboration'. It not only reveals what teachers understand by the concept 'collaboration' but also their understanding of the importance and the processes of collaboration.

Secondly, this chapter shows the nature of teachers' collaboration that emerged from the data. It discusses what teachers do collectively in and around the school and how they do it. Chapter 7 addresses the third research question and explains the factors found in the data that affect teachers' collaboration.

Chapter 8 discusses three significant aspects of teachers' collaboration that emerged from the findings. First, it discusses the teachers' perspective of collaboration in light of existing literature and the theory of affordance. The discussion offers an alternative viewpoint to existing definitions of teachers' collaboration. Secondly, the nature and significance of the community of practices (CoP) formed by the participant teachers is discussed. Finally, the chapter highlights the influences of wider cultural aspects on teachers' collaboration.

These aspects are discussed in light of the theories described in Chapter 4 and the existing literature. In addition, the cultural dimensions developed and explained by Hofstede (2010) are used to explain the influence of cultural factors on teachers' collaboration.

Chapter 9 draws conclusions and makes recommendations for policymakers, practitioners, teacher trainers, headteachers and teachers. It also points to the future scope of research in this area whilst acknowledging the limitations of this study.

Chapter Two Bangladesh: The context of the study

2.1 Introduction

Human behaviour is not entirely a product of any single situation (Delamont & Atkinson, 1980). Rather, we need to take the chronological sequence of social events into account in an attempt to explain any action taken by a member of society as any previous events may have consequences on a later action (Elster, 2015). For this, the context of a research study is important, not only to explore the problem but also to critically analyse any findings. In this chapter, the history and culture of Bangladesh and the effects of these on education are discussed. The primary education sector, the reforms within it and the teacher education provisions in Bangladesh are examined against this historical and cultural background. This chapter also discusses the consequences of history, culture and reforms on the education system and teachers' behaviour. This chapter concludes with an explanation of why this context is chosen for this study.

2.2 The history and culture of Bangladesh and their effects on education

When the British colonial era in India ended in 1947, the subcontinent was divided along sectarian lines and two states were formed. Hindu and Sikh areas remained part of India, while predominantly Muslim areas became the nation of Pakistan. The state of Pakistan consisted of West and East Pakistan leaving around twelve hundred miles between them which was still India. However, following a nine-month long war, East Pakistan achieved independence after twenty four years and became the Government Republic of Bangladesh in 1971. Before independence, East Pakistan suffered huge disparities compared to West Pakistan, including in the education sector (Asadullah, 2006). The enrolment and retention rates of primary school children were comparatively lower in the East than in the West. The number of primary schools was also lower in East Pakistan (Asadullah 2006).

Such disparities were maintained in East Pakistan in other aspects throughout the pre-independence period, which left its legacy on post-independence Bangladesh. Following the war of independence, the country suffered from a huge need for school infrastructure as well as numbers of teachers. In 1972, the teacher-student ratio in the primary sector was 1:47 (Knoema, 2015), and this is largely unchanged (Asadullah, 2006). In the post-independence era, there has been a great increase in student enrolment and an expansion of the teacher workforce, but these two together mean the teacher student ratio has not improved; there is a resulting teacher shortage in Bangladesh which has not been ameliorated since independence. Many schools run double shifts because they do not have enough teachers to teach single shifts, while many classrooms are overcrowded (sometimes with 100 or more learners); all of these are indicators of teacher shortages (S. Burton, Eyres, & McCormick, 2019; Glewwe & Kremer, 2006). Moreover, most of the teachers in the primary sector do not have a teaching qualification (UNESCO, 2014).

However, in other respects, the socio-economic and educational aspects have remarkably improved since 1971. With a population of 164 million (Bangladesh Bureau of Statistics, 2018) the poverty (earning below \$1.25 a day per person) of the country has been reduced from 44.2 percent in 1991 to 14.8 percent in 2017 (S. Burton et al., 2019). Along with economic progress, life expectancy, literacy rates and per capita food production have increased significantly. Bangladesh is looking forward to achieving ‘middle-income country’ status by its 50th birthday in 2021. However, the country is yet to overcome a considerable number of challenges, especially reducing income inequality (Waheduzzaman & Alam, 2015). Other challenges identified as priorities by The World Bank include: job creation, ensuring access to reliable and affordable power, appropriate transportation infrastructure, and a secure business environment to create jobs (The World Bank, 2019). Corruption and excessive bureaucracy, which are evident at almost every stage of governance including education (M. Rahman, 2014), are often cited as major challenges

for the country. For instance, School Management Committees (SMCs) were introduced in 1977 in primary schools to manage and monitor the development of schools (Directorate of Primary Education, 1998; M. Rahman, 2014). For each school, a committee is formed of eleven members: the chairman is the District Controller or a nominated person by him/her, the secretary is the headteacher of the school, there are four elected parent members, two elected teacher members, two donor members (who donated money or land for the school) and a local person whose remit is to promote education. The committee has authority over the school's annual budgeting, teacher recruitment and reporting to the local education authority. Without their approval, these activities cannot be performed. However, often there are allegations that SMCs are dishonest and exercise illegal power over school personnel. A research study of local government noted:

...these SMCs are not enhancing participation of the main beneficiaries, i.e. students' guardians, in school development programmes. In most cases, the presidents of the SMCs are nominated by the local MP, not elected democratically. With support from the local MP, development works in the school are solely handled by the SMC president... (Waheduzzaman and Alam 2015 p.270)

The SMC is often blamed for failing to perform its duties. Moreover, according to Waheduzzaman and Alam (2015), the chairman is often found to be nominated by local political leaders and thus likely to be a person with higher social and political status than the teachers and headteacher of a school. Professional communication rarely occurs between such parties in a hierarchic system based on a person's social position, caste, status, educational background, seniority and gender, and this is particularly the case in rural areas (Haque & Mohammad, 2013). Haque and Mohammad (2013) suggested that 'manno kara' (obedience) and 'shradha' (deference) to seniors is an important norm and value in a hierarchic society in Bangladesh and going against such norms is considered as

socially unacceptable. They noted that the legacy of such values has perpetuated conservatism in the administrative and political system of Bangladesh.

These wider social and cultural norms affect relationships within the teachers' community in a school. Communication and collaboration among teachers are often influenced by *manno kara* (obedience) and *shradha* (deference). Junior teachers may avoid any argument or discussion with senior colleagues. Conversations between male and female colleagues may be similarly inhibited as the participation of women in social and economic life is restricted by the cultural norms (Haque & Mohammad, 2013). This scenario may sound like a cause for individualism, however, Haque and Mohammad (2013) argue that the sense of individualism often experienced in Western society is diminished by the close-knit village communities and the complex interdependent social networks that exist in rural Bangladesh.

2.3 The primary education system and major reforms

Despite the initial poor infrastructure, lack of skilled teachers, and low enrolment and retention rates at independence, Bangladesh has achieved remarkable progress in the primary education sector (The World Bank, 2019). Among those, the most significant achievement is ensuring access to free and compulsory primary education and gender equity (S. Burton et al., 2019).

As Bangladesh has achieved remarkable access and gender parity in primary education (Croft, Miles, Brown, Westbrook, & Williams, 2017; U.S. Agency for International Development, 2002; UNICEF, 2009), the country now focuses on the quality of education. According to recent statistics, the primary education sector has half a million teachers (Bangladesh Bureau of Educational Information and Statistics, 2015). In 2013, the government declared the nationalisation of 26,193 non-government primary schools (The Daily Star, 2013). These schools previously were either registered non-government

primary schools (RNGPS) or community schools. While the teachers of RNGPS used to receive a lower salary than government school teachers, community school teachers were paid by the community members or non-government organisations. Teachers of these schools (RNGPS and community schools) had poorer conditions of employment, including tenure of employment and pension, than government school teachers (S. Burton et al., 2019). As the government took over those schools, the country's primary education was announced to be fully nationalised (The Daily Star, 2013) and teachers' salaries became standardised and paid by the government .

In the primary education sector, teachers must have at least a secondary-school certificate qualification. A small number of teachers have higher qualifications including master's level. Newly appointed teachers are eligible to receive initial training, for which there are 56 Primary Training Institutes (PTI) across the country (Bangladesh Bureau of Educational Information and Statistics (BANBEIS), 2016). As of 2009, around 74 percent of government primary school (GPS) teachers had completed initial teacher training (S. Burton et al., 2019) (although UNESCO suggested that as of 2014 more than half of the total primary teachers do not have a teaching qualification). However, the availability of skilled teachers is still a challenge. It can take years for a teacher to receive training after s/he joins a school, due to a backlog. Moreover, the training curriculum is often criticised as ineffective in equipping teachers with the competencies required to deliver basic literacy and numeracy provision (Ministry of Education, 2010).

To enhance the quality of classroom teaching-learning and teacher education, a number of reforms were implemented from 1971. The major initiatives include the General Education Project (GEP) started in 1990 and three phases of Primary Education Development Project (PEDP) started from 1997 (U.S. Agency for International Development, 2002). Right after the World Declaration on Education for All (EFA - 1990), of which Bangladesh was a signatory, the GEP was implemented with the support of several donor agencies. The

project built and rehabilitated school infrastructure and introduced new curriculum and textbooks along with other reform activities. Later, from 1997, the GEP was turned into a sector-wide programme and renamed Primary Education Development Project (PEDP), which completed its third phase in 2018. The government is currently working to introduce the fourth phase of the programme.

The primary goal of the phases of PEDP was to increase access to and improve the quality and equity of primary education. Along with other aspects, teacher education was a major concern of the programme. The second and third phases of PEDP introduced the Diploma in Primary Education (DipEd), local sub-cluster meetings and needs-based cluster meetings, while establishing more PTIs. The third phase of the programme (2012-2018) emphasised digitalisation of the primary education system: schools received laptops and multimedia projectors under the programme (Directorate of Primary Education, 2015), and teachers have access to digital teaching-learning materials through a government portal called Shikkhak Batayon ('Window for teachers') where they can find PowerPoint presentations of lessons created by practising teachers and specialists across the country. Teachers can also create and upload their own lesson presentations to the portal (Prime Minister's Office Bangladesh, 2018).

In terms of teachers' professional development, a Teacher Education and Development (TED) plan has been developed under PEDP-III. The TED plan introduces the Diploma-in-Primary Education (a two and a half year in-service training) and Teacher Support Networks (TSN), which are school-based continuous professional development programmes intended to make teaching and learning more effective and ensure improved learning outcomes (Directorate of Primary Education, 2015).

To strengthen the provision of Continuous Professional Development (CPD) the TED plan strongly emphasised contextual and situated learning. The existing in-service training are to be restructured to ensure 'needs-based' training and teacher/headteacher 'support

networks', for improving teaching and learning at the school and sub-cluster levels ((*Directorate of Primary Education, 2015*). The Teacher Support Network (TSN) is based upon the Japanese lesson study model (Takahashi & McDougal, 2016) and has been made a requirement in all primary schools. This aims to create opportunities for teachers to evaluate teaching-learning activities from an investigative stance following a three-step cycle: 'Plan-Do-Reflect' (Lesson Study Manual, 2014).

Another teacher training project within the PEDP-III, English in Action (EIA), was also aimed at increasing the teachers' learning opportunities in context. EIA promoted individual and peer collaboration using classroom videos (C. S. Walsh et al., 2012). EIA also introduced a collaborative action research model in its 'Teachers' Voices' program, where teachers worked together to identify problems or issues in their teaching practice and the causes behind these. Similar collaborative research activities are taught and encouraged by the Diploma in Primary Education (DPEd.) courses. In addition, a needs-based sub-Cluster meeting was organised and facilitated by government education officials locally in every three months, where teachers from four to five schools (20-25 teachers) gathered together to share their experiences and solve any teaching problem locally.

All these CPD initiatives promote the idea of collaborative learning. The concept of collaborative learning is evident in Bangladeshi teacher education policies and contexts because the National Education Policy (NEP) has recommended reforms based on a sharing of knowledge among teachers. The first ever National Education Policy (NEP) in the country's history, a comprehensive education policy framework, was introduced in 2010. NEP has proposed an extension in the length of primary education from five years to eight years (grades 1 – 8) (Ministry of Education, 2010). This has been a longstanding mandate of the Bangladeshi government (Ali, 2000). To achieve that goal, a huge restructuring is needed in terms of teacher supply and teacher education (*Asian Development Bank, 2017 p. 73*). It can be assumed that to ensure a smooth transition,

collaborative learning between the teachers who teach grade 1-5 and those who teach grade 6-8 would be beneficial.

2.4 Why Bangladesh for this study?

All the current reforms in the primary education sector in Bangladesh emphasise teachers' collaboration for their professional development. This context is an interesting one in which to study teachers' collaboration, because the recent teacher training interventions, both government and non-government donor agencies, are emphasising school-based learning for teachers. These interventions, directly and indirectly, are intended to promote formal and informal interactions among teachers within and between the schools. For instance, the DPED curriculum includes sessions on action research. Student-teachers are teamed during the DPED course and carry out classroom research in their practice schools (NAPE, 2015). In this endeavour, they develop knowledge and skills of inquiry-based learning, classroom research, tools design, data collection and analysis, and reporting, in collaboration with fellow student-teachers. Similarly, the sub-cluster meetings are aimed at creating opportunities for teachers to share their teaching and non-teaching work experiences, identify issues and find solutions together (Directorate of Primary Education, 2015). The government continues to promote in-school collaboration through lesson-modelling and promoting pedagogies to develop teachers' classroom teaching. In addition, the large-scale EIA programme introduced a peer support model where pairs of teachers observed each other's classes, watched classroom videos and reflected on their practices (C. S. Walsh et al., 2012).

These interventions aim to harness teachers' collaboration in order to improve the impacts of professional development on teaching quality and learning outcomes. However, the inclusion of collaborative learning in policy does not guarantee the implementation of collaboration in schools. This policy-practice gap is due to the shortage of teachers, their varying skills in collaboration and lack of other resources such as time that often restrict

teachers collaboration in LMICs (M. S. Rahman, 2019; S. Rahman, 2011; Ricci, Zetlin, & Osipova, 2017). While lack of time and resources are frequently identified as factors that restrict teachers' collaboration, teachers' skills in collaboration are found to be another factor inhibiting their joint professional development in the Bangladeshi context (S. Rahman, 2011). It is therefore important to investigate empirically the existing collaborative practice among teachers in schools.

Moreover, Bangladesh presents a unique context for studying teachers' collaboration. The literature in the field of teachers' collaboration is predominantly from Western countries (e.g. USA, UK, Australia and New Zealand), where teacher-student ratio is lower, and where there is better provision for professional development than in LMICs. In contrast, schools in developing countries suffer from high teacher-student ratios, an overwhelming teacher workload and low expenditure on infrastructure and teacher education (The World Bank, 2018). How teachers' collaboration works in a context where teachers are challenged by lack of time and resources is rarely investigated.

At the same time, studies from Western and developed countries often suggest that teachers' collaboration suffers from teacher isolation (Lortie, 1977; Pomson, 2005). Teachers often express feelings of professional and social isolation; their teaching tends to be 'behind closed doors', unseen by others, and they tend to lead individualistic social lives (A. Hargreaves & O'Connor, 2017). Additionally, the sense of, and professional advocacy for, teachers' autonomy in Western contexts are often considered as restricting factors for a collaborative environment. In contrast, the Bangladeshi rural community is tightly knit and characterised by strong social cohesion (Waheduzzaman & Alam, 2015). Teachers' professional and social lives are highly influenced by complex social networks that involve their colleagues. According to regulations in Bangladesh, teachers are eligible to take a placement in a school in their locality (Ministry of Primary and Mass Education, 2018 article 3.7 & 3.9). This is because the salary of the primary teachers is poor and

commuting a long distance for their job or to hire additional accommodation near the school is difficult for them; moreover, female teachers are unlikely to relocate for a teaching job. Thus, teachers in a school are likely to be from the same locality and know their colleagues and students personally. This circumstance might bring a different dimension to their professional community and community of practice (CoP) (Lave & Wenger, 1991) than the context portrayed in the literature on CoP in developed countries. One study has described Bangladeshi teachers' as isolated (Thornton, 2006), however, the isolation referred to in this particular study means that teachers teach alone in the classroom and have little time to observe each other's classes. The wider social context is not evident in such literature. Thus, Bangladeshi primary schools represent under-studied but potentially revelatory contexts to investigate teachers' collaboration, considering the school environment and social values.

Moreover, as a cultural insider of the context, it is, as I will argue later in the methodology chapter, a suitable context for me to undertake such research. My academic and professional experiences have enabled me to feel confident to conduct research in this context. As a Bangladeshi with BEd and MEd I have a great deal of understanding about the education subsystem and teachers' lives in Bangladesh. In addition to that, from my work on EIA and my prior research, I have spent a lot of time professionally observing and trying to understand what happens in Bangladeshi classrooms and schools and teachers' perspectives on this.

2.5 The school

This study was conducted in a government primary school in Bangladesh. The school was deliberately selected after visits to three schools. Teachers' collaboration was more evident and observable in this particular school than the other three schools, and therefore the research site would yield data. The selection process of the school is described in the methodology chapter (Chapter 5) of this thesis.

The school, selected for this study, is located around seven miles away from a district town, which is thirty miles from the capital city, Dhaka. The district comprises seven upazilas (sub-district and administrative unit of the country). The demography of the upazila where the studied school is located is shown below:

Table 1: Demography of the area where the studied school located in

Area	141 square kilometres
Total population	138,479
Male	69,171
Female	69,308
Muslim	11,9403
Hindu	19,042
Buddhist	21
Members of other faiths/religions	13
Overall literacy rate	49.66%
Literacy rate (Male)	54.32%
Literacy rate (Female)	45.05%
Population engaged in agricultural activities	54.03%

Ref: (Banglapedia: National Encyclopedia of Bangladesh, 2015)

Although the majority of people are engaged in agricultural activities in this upazila, about 41 percent of the population is landless and are either engaged in agricultural activities in land- owners' farms or in other sectors such as non-agricultural labour, industry, commerce, transport and communication, service, construction, and religious services. (Banglapedia: National Encyclopedia of Bangladesh, 2015).

The district is rich in culture. The local folk songs and games are practised in different fairs and religious events. Specifically, in the upazila, there are a higher number of Hindu people than most of the upazilas in Bangladesh. The Hindus celebrate religious festivals across the year. In these events, not only Hindus but also Muslims actively participate in the performance of folk songs and games. A Sufi community also lives the centre of the

upazila, at the site of a *mazar* (the grave of a saint). A huge weeklong fair is held every year where folk songs and traditional plays are performed, and people participate regardless of their religious identity.

The school is located at an end of the upazila adjacent to the highway that connects the district with the capital city. Although the school is officially recorded as ‘rural’ by the education authority, the location has good transport and communication. The school is frequently visited by local and central education officials, causing some interruption to teaching and learning. Education officials tend to visit this type of school, which has good communication and transportation but is considered ‘rural’, as they often have to meet targets to visit a certain number of rural schools within a specific period of time.

The school was established in 1957. During the field research there were twelve teachers including the headteacher, and 593 students. (The official designation of a teacher in Bangladesh is ‘Assistant Teacher’, but for the purpose of this thesis they will be called ‘teachers’). Among the teachers, four, including the headteacher, have a postgraduate degree, five have a first degree, two have a higher secondary school qualification and one has a secondary school certificate. All but one have the Certificate in Primary Education (CinEd) qualification (which currently is the DPED), a one-year initial teacher training course provided by Primary Teachers Institute (PTI) (although this is not a typical scenario in Bangladeshi primary schools, it is not highly unusual. Overall half of the primary teachers in Bangladesh have this training and the government is putting effort into ensure initial training for all the teachers. Yet, there is dissatisfaction about the training amongst teachers and other stakeholders about the quality of the training. All but three teachers live in the locality of the school and come to the school on foot. The three teachers who do not live in the locality travel a few kilometres by local bus or motorbike, and two of them are male teachers. The following table illustrates the demography of the teachers. One teacher is Hindu by religion, others are Muslims.

Table 2: Teachers' demography

Name (Pseudonym)	Position	Gender	Age range	Academic qualification	Teaching Experience	Teaching qualification	Religion	Distance between home and school
Md. Bulu Mia	Headteacher	Male	41-50	Master's Degree	13 years	Certificate in Education	Islam	0-3 km
Sariful Islam	Assistant Teacher	Male	51- 60	Master's Degree	29 years	Certificate in Education	Islam	0-3 km
Sonu Saha	Assistant Teacher	Female	51- 60	Secondary	26 years	Certificate in Education	Hindu	0-3 km
Benu Akter	Assistant Teacher	Female	51- 60	Higher Secondary	14 years	Certificate in Education	Islam	0-3 km
Rakiba Begum	Assistant Teacher	Female	51- 60	Graduation	29 years	Certificate in Education	Islam	0-3 km
Nazu Begum	Assistant Teacher	Female	31-40	Graduation	16 years	Certificate in Education	Islam	0-3 km
Titly Parvin	Assistant Teacher	Female	31-40	Graduation	12 years	Certificate in Education	Islam	0-3 km
Nahar	Assistant Teacher	Female	31-40	Graduation	16 years	Certificate in Education	Islam	0-3 km
Parvin Akter	Assistant Teacher	Female	31-40	Graduation	13 years	Certificate in Education	Islam	0-3 km
Asraf Rahman	Assistant Teacher	Male	31-40	Master's Degree	16 years	Certificate in Education	Islam	4-6 km
Shorafot Hossain	Assistant Teacher	Male	31-40	Master's Degree	7 years	Certificate in Education	Islam	4-6 km
Shokhi Mirza	Assistant Teacher	Female	21-30	Higher Secondary	3 years	No qualification	Islam	4-6 km

The U-shaped concrete-built school building has seven classrooms and a staff room where all the teachers and the headteacher sit. The staffroom is larger than the typical classroom, with tables arranged in an L-shape. The headteacher sits at one end of the table. Other teachers sit on both sides of the tables in the other part. Generally, the three male teachers sit next to the headteacher and the female teachers sit apart from them. Anyone can sit anywhere, except for the headteacher's chair, but in field observations they all usually use the same chairs every day. There are two cabinets used to keep school textbooks, ledgers, supplementary books and documents, and a laptop. The shelves, fixed to the wall, are decorated with medals that students won in different inter-school competitive events. The wall behind the headteacher's chair is covered with charts illustrating teacher and student related statistics. Above the charts, there are photos of the Prime Minister Sheikh Hasina and the father of the nation Bangabandhu Sheikh Mujibur Rahman (who led the war of independence and served as the first president of Bangladesh). In front of the school, there is a large playground which is owned by the nearby secondary school, but the students of the primary school mostly use the field.

In this school, in each grade the number of students is over a hundred. However, they are divided into two sections, and two teachers share lessons for each subject in those sections in two different rooms, with both teaching the same lesson at the same time. Yet, most of the sections are overcrowded, comprising of 50 to 80 students, because the majority of students attend class regularly. Typically the attendance rate to range from 75.5% to 93.5% based on the age of the students in Bangladeshi primary schools (UNESCO, 2013). One class has a multimedia facility (i.e. projector and a screen), and the school has a laptop connected to the school wi-fi. The cost of the wi-fi is shared among the teachers.

Like other government primary schools in Bangladesh, teachers in this school teach five and half days a week which is the government regulation. A regular school day starts at half past eight and ends at half past four. Thursday is the last day of the week and it is a

half working day which starts at the same time as other days but ends two hours earlier, at half past two. In a full working day, eight sessions take place in the school. Each teacher is allocated five sessions of different subjects (they are not subject specialists). However, most of the teachers take more sessions than they are assigned because of colleagues' absences.

The school activity starts with a general assembly of the students where they recite from holy Quran and Geeta, perform the national anthem, make a vow for being a good citizen and carry out some physical exercise. This activity runs for twenty minutes. The first class starts at nine fifty and ends at ten forty-five (fifty-five minutes long). The next three classes run for 50 minutes each until the lunch time at one fifteen and the break is half an hour for lunch and afternoon prayer. After the break, the first two classes run for forty minutes each and the last two classes are thirty-five-minute-long and end at four thirty.

On a Thursday, classes are shorter. The first two classes are forty-five minutes long and then follow two classes of forty minutes until the break at twelve thirty for half an hour. After the break there are two more classes of thirty-five minutes each and then teachers have twenty minutes for lesson study (a professional development meeting). This meeting was never observed to take place during the fieldwork.

Teachers were observed to carry a notebook in which they were instructed to pre-plan classes by the local education office and the headteacher.

The students are mainly from low socio-economic backgrounds and their parents are engaged in jobs such as barbering, making local musical instruments, rickshaw pulling and agricultural work. However, there is no available statistic that shows the proportion of students who come from which background.

This school participated in the EIA intervention (explained in Chapter 1, please see page 5). Thus, the teachers in this school were aware of the concept of collaboration and its importance to some extent. However, EIA promoted collaboration as peer support for two

specific teachers and trained them to carry out some specific collaborative activities. Hence, the teachers were aware of the phrase ‘peer support’, rather than the word ‘collaboration’. Moreover, by the time of my data collection, EIA had been phased out. The teachers retained their understanding of peer support, but activities were scarce.

2.6 Chapter Summary

This chapter provided contextual information about the Bangladeshi education system, specifically primary education, and argued how the context was suitable and potentially fruitful for this PhD study. Moreover, the chapter has given an overview of how Bangladesh has achieved remarkable progress in access and gender parity in the primary education sector. The government has been focusing on the quality of education, and developing skilled teachers has been one of the strategies the government has adopted for increasing quality in teaching-learning in primary schools. However, the existing teacher education system has been identified as a weakness since the first National Education Policy. The government has put efforts into ensuring effective and practical teacher education. Several reforms have taken place, including extending the length of the initial teacher training course (DPED), making provisions for context-based continuous professional development and integrating technology for teachers’ professional development.

Within the reforms, and in policy and in practice, there has been an emphasis on teachers’ collaboration for context-based continuous professional development. Sub-cluster meeting and lesson study activities were meant to provide teachers with platforms for sharing experiences, identifying issues with teaching-learning, and finding alternatives for those issues collaboratively with colleagues within and across the school. Thus, the context, where teachers’ collaboration has been promoted through different interventions, provides an interesting opportunity to study the nature of teachers’ collaboration in a low-income country.

Chapter Three- Literature review

3.1 Introduction

This chapter is dedicated to synthesising theoretical and empirical literature on teacher collaboration and to justify how the present research study addresses the research gaps and inconsistencies.

In this chapter, Section 3.2 sets out the systematic process of the literature review. Section 3.3 uses the relevant literature and wider reading to analyse and understand different concepts of collaboration. Section 3.4 categorises the literature based on its focus and research orientation to collaboration. Section 3.5 provides a critical appraisal of the literature, and Section 3.6 discusses how the review guided the research questions for this current study. A summary of the chapter is provided in Section 3.7.

3.2 A comprehensive review of literature

Through a comprehensive literature review I ensured the inclusion of the most relevant studies, whilst excluding the less relevant (Kennedy, 2007). Moreover, the aim of a literature review is to introduce a topic and summarise the main issues in the area of a research problem by scrutinising existing studies in the area. If an existing study is to be considered a reliable source of research evidence, there is a need to record how the study was sought and selected and how it was analysed to produce a conclusion (EPPI Centre, 2019).

A Scopus search (<https://www.scopus.com>) with a “*teacher*’ and *collaboration*” algorithm was undertaken which produced 10,246 resources between January 2011 and June 2019. These resources included journal articles; conference presentations; and books and chapters in a range of disciplines, such as education in general, social science, computer education, medicine, arts and humanities, mathematics, and nursing. This reflected the attention given by academics and philosophers to the collaborative endeavour

in almost all aspects of human activity. It also highlighted the variety of lenses through which the concept of collaboration is viewed.

This literature search involved including and excluding work based on necessary criteria to make a boundary for the area of study (Hart, 2001). In this search, when filters were used to restrict the resources into journal articles written in English in social science, and arts and humanities disciplines with the keywords of ‘teaching’, ‘education’, ‘students’, and ‘collaboration’, the number of resources came down to 860. The keyword ‘student’ was included to see a broad perspective of school-based collaboration in the first instance.

An analysis of the citations of these refined resources indicates that the number of studies in the area of teacher collaboration increased steadily since 2010.

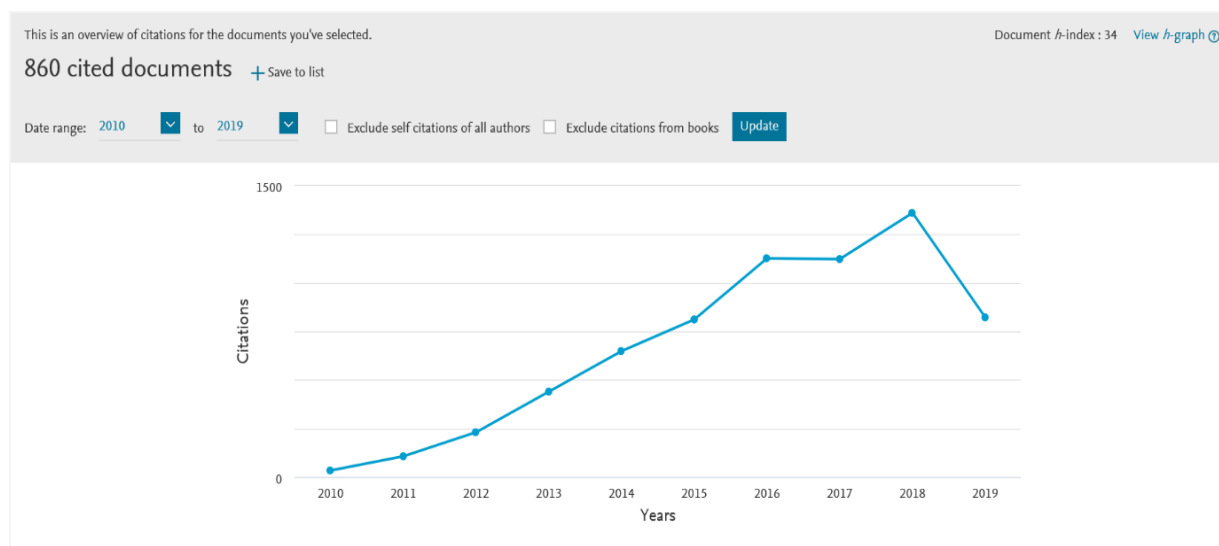


Figure 1: Increasing interest in teacher collaboration research²

After this step, the headings of the studies were scanned to exclude studies which are beyond the area of school-based teacher collaboration. This scrutiny showed that school-based teacher collaboration included teachers collaborating in a variety of ways with

² The number of citations in 2019 appeared to be dropped in this graph because it counted citations only till June 2019.

colleagues, students, administration, external bodies such as university academics and researchers, teacher development practitioners, parents, community members and healthcare practitioners. This process brought the number of articles down to 246.

The abstracts of these 246 articles were read and studies that concentrate on teachers' collaboration within the school were identified. This step brought the number of studies down to 177. These studies were read in-depth to understand teachers' school-based collaboration.

From this review, I tried to understand how the concept of teacher collaboration was presented in the existing literature. Although the review of the literature in this chapter is predominantly based on these 177 studies, the knowledge gained from abstracts read in previous step, and my wider reading of research papers, reports, websites of relevant organisations and books has been used to develop my understanding. I went beyond these 177 studies because, although these studies provided empirical research findings within a recent period of time (January 2011 to June 2019), the concept of teachers' collaboration has been a focus as early as Dewey in the opening decade of twentieth century (Riveros, Newton, & Burgess, 2012), and the concept has arisen in many disciplines since then. As a student of education and a professional in the area of teacher education, I had already acquired earlier and wider knowledge in this area which I used to underpin the understandings I developed from this review. Moreover, I followed the thread of references in the readings to identify and read further resources to broaden my understanding the issues and debates in the area of teachers' collaboration.

3.3 Conceptualising teachers' collaboration

The studies in the area of teachers' collaboration indicated that there is a diversity of definitions. While some researchers saw teachers' collaboration as goal-oriented, purposeful and planned activities, others included social interactions and relationships in

their definitions. Some studies revealed teachers' perceptions of collaboration, which is illustrated in the latter part of this chapter.

Teacher collaboration in theory and practice: In the Oxford Dictionary, the meaning of the word 'collaboration' is straightforward: "the act of working with another person or group of people to create or produce something". Yet, the last word in the definition *something* may present a complexity. Two people can just have a social talk over a cup of tea and create something which is a newer meaning of their experiences. Such interactions are mostly led by social bonds and characterised by cordiality and spontaneity. Such a chat may be a significant event in the process of social construction of knowledge (Schön, 2017). In contrast, people may work deliberately together to produce something which achieves pre-determined goals. Such joint work may happen between individuals who know or do not know each other, especially nowadays as people communicate through the internet and can work together without physically meeting. Are both these types of 'working together' collaborations?

Such a dilemma in defining collaboration was even stronger in the area of teachers' collaboration. Kelchtermans (2006) pointed out that teachers' collaboration in educational research may appear to be obvious in meaning but 'even a quick look at the literature' shows that it is far from equivocal.

Kelchtermans noted that in the research literature, collaboration was used synonymously with collegiality. He argued that these two terms (collaboration and collegiality) were closely connected but different in nature. 'Collaboration' is action-oriented and 'collegiality' implies the quality of a relationship, which means that actions and relations may be connected but not necessarily all the time. Yet, Kelchtermans somewhat contradicted his argument by saying that 'collaboration and collegiality constitute and reflect one another (and) actual actions of working together are determined by the quality of the relationships...' (Kelchtermans, 2006 p.221), which means that a positive

relationship enables more effective collaboration; this evidence can be found in recent studies (Da Fonte & Barton-Arwood, 2017; E. Hargreaves, 2013). Therefore, it is difficult to separate collegiality (relationship) from collaboration (action).

Hence, a key question was whether to consider collegiality when researching collaboration, or simply focus on the collective actions that people demonstrate together. This debate is a longstanding one. As long ago as 1982, Little (1982) considered anything that teachers do together with their colleagues as teacher collaboration. She developed an inventory of teacher collaboration based on teachers' day-to-day interactions with their colleagues including the headteacher, administrators and support staff, which may take place in the staff room, classrooms and school premises. She carried out this study in six US schools. Later, Fielding (1999) very strongly disputed this and argued that Little (1982) conflated collaboration and collegiality. He suggested that 'collaboration' and 'collegiality' were very different kinds of human associations. According to Fielding, a collaborative approach may be driven by a carefully chosen set of concerns and dispositions where other teachers are regarded as the source of information and resources. Collegiality, in contrast, was more communal in form and substance, driven by shared professional ideas. While collaboration was somewhat instrumental and time-bound, collegiality was a continuous interaction among teachers that happens out of their value rationality and commitment to valued social ends (Fielding, 1999).

While Little and Fielding exemplify the two extreme ends of the debate, much more recently Friend and Cook (2013) combined collaboration and collegiality, defining collaboration as "a style for direct interaction between at least two co-equal parties voluntarily engaged in shared decision-making as they work toward a common goal (p. 7)." They referred to 'action' as 'interaction' for achieving a common goal and 'relation' as 'co-equal voluntary engagement'. Therefore, in a collaborative endeavour, action and

relation go hand in hand, although Friend and Cook put a greater emphasis on goals in their definition of collaboration.

In studies of teacher collaboration, collective actions seemed to be the most important indicator. This is probably because an action was visible while relations may be invisible and difficult to prove. For instance, in this review, in the majority of studies that revealed the nature or effectiveness of collaboration, whether the interactions are face-to-face or virtual, it was the joint activities that were considered to be collaboration. The collaborative activities that were most frequently identified or mentioned in the studies that were read in depth, were: sharing resources, experiences and ideas (Fong & Slotta, 2018; Little, 1982), contributing to decision-making processes (Carpenter, 2018), collective research (Lemon, Wilson, Oxworth, Zavros-Orr, & Wood, 2018; Li, 2019; Musanti, 2017), co-teaching (including planning and implementation) (Ernest et al., 2013; Friend, Embury, & Clarke, 2015; Pratt, 2014), lesson observation and providing feedback (Akiba et al., 2019; Berry, Johnson, & Montgomery, 2005; Cajkler, Wood, Norton, Pedder, & Xu, 2015; Danielowich, 2012; Dunne, Nave, & Lewis, 2000; Svanbjörnsdóttir, Macdonald, & Frímannsson, 2016), and mentoring (Rickard & Walsh, 2019; Shumba, Rembe, Chacko, & Luggya, 2016; Thompson, 2016). In these studies, visible behaviour was described and linked with specific outcomes such as professional development and student attainment. The studies indicated that researchers developed models of collaboration with the pre-set goal and tested the results.

In summary, sharing, observing, reflecting, purposeful discussing and producing artefacts (plans, resources etc.) were the core collaborative activities that emerge from the studies of the literature review. Little (1982) mentioned all these aspects in her inventory of teacher collaboration. However, she expanded the notion of ‘purposeful discussion’ and labelled it as ‘continuous and increasing talk’. This meant, talking among colleagues, be it formal purposeful or informal and social, had a value in collaboration, as this indicated the quality

of relationship among colleagues and could contribute to teachers learning. A number of studies (Canonigo, 2016; Cohen, Deal, Meyer, & Scott, 1979; Friend et al., 2015; E. Hargreaves, 2013) provided a situated account of teacher collaboration using situated learning and socio-cultural theory of learning to explain the notion of teacher collaboration. It was suggested that professional learning was situated in day-to-day practice in context. However, these studies considered organisational culture when defining the day-to-day practice of teachers. The wider social context was not taken into account.

A smaller number of studies emphasised the socio-cultural and psychological aspects of the relationship among the members of a collaborative team when investigating collaboration. For instance, professional relationship, hope, fear and interdependency are considered as inescapable aspects of collaboration (Da Fonte & Barton-Arwood, 2017; Friend et al., 2015; E. Hargreaves, 2013; Shingphachanh, 2019). Balanced participation and power amongst group members were found to be essential for effective and sustainable collaboration (Cohen et al., 1979). How the collaborative activities were assigned to the members of the group was also a determining factor for the effectiveness of the collaboration (Canonigo, 2016). Non-coercive processes of collaboration have more benefits than imposed and forced collaboration: surveillance can be a measure for enhancing collaboration but if teachers are forced to collaborate it may lead teachers to subvert the concept and purpose of collaboration (Canonigo, 2016). Again, the studies cited in this paragraph had considered relationships between teachers within the school. The wider social relationship that was constructed by not only the organisational interaction, but also social and cultural norms were not included.

When collaboration was considered a means of breaking isolation, the interpersonal relationship and trust among the members of a collaborative group became the key factors. Hadar and Brody (2010) identified two levels of isolation: personal and professional.

Through social interaction, both types of isolation could be broken. They also developed a three-layered model of a teachers' community of practice based on the depth of collaboration among members of the community. In the first layer, teachers break isolation when they find a safe environment characterised with positive interpersonal relationship and trust. In this first layer, they start talking about student learning and move to a deeper level of the community. In the second layer, they improve their teaching through reflection, skill development, documentation of knowledge and implementation of these practices. Gradually, teachers move towards a third layer where they develop professionally through a higher order of functioning that consists of acquiring dispositions towards teaching, thinking, a sense of accomplishment and a feeling of efficacy.

In brief, it has been a long-held view that teachers' professional advancement occurs through social interaction (Lave, 1991; Schön, 2017), sharing information and perspectives and developing ideas. These all happen in a community where the members are engaged in social and professional practice. A school constitutes a community and what teachers do with colleagues are part of their practices. Thus, to understand the nature of teachers' collaboration, it is important to understand the social and professional relationships amongst teachers. To do so, their socio-cultural norms and values are also important to comprehend.

3.4 A thematic analysis of existing studies in teacher collaboration

The thematic analysis of the literature is the focus of this section. I categorised the 177 studies, which were selected through a series of steps (described in Section 3.2), based on their thematic focus. Although it might be artificial to classify journal articles according to a single thematic emphasis, as usually they have more than one central focus, it helped me to identify key ideas about collaboration while summarising the research. Moreover, concept and arguments from one category can be used in others, when relevant and necessary.

Through this process I identified four over-arching themes. I developed the themes by reading the articles several times and identifying the ideas in those articles. I decided to use themes to present the review of the studies since the studies could be categorised based on the main ideas and that made it easier to conceptualise the varied focuses of the studies. Moreover, the themes provided a flexible framework for analysis of the studies. The foci of the studies were listed and categorised into four common themes.

1. Teachers' perceptions of collaboration
2. Impact of Collaboration
3. The environment of collaboration
4. Nature of collaboration

First, studies in the 'perceptions' category investigated how important teachers feel collaboration was or their experience of collaborative activities and suggested that teachers were mostly in favour of collaborative culture (Casserly & Padden, 2018; Gurl, 2019; M. S. Rahman, 2019)(Casserly & Padden, 2018; Gurl, 2019; M. S. Rahman, 2019). Second, the majority of studies in this review aimed to explore the impact of teachers' collaboration on their professional practices, students' attainment and overall school improvement. In the 'Impact of Collaboration' theme, the focus was the impacts of collaboration on teachers' continuous professional development in schools. The studies in the theme considered collaboration as a tool for developing teachers professionally and used as a strategy of training, research and reflective practice. These revealed the impact of teachers' collaboration in their Continuous Professional Development (CPD). The third theme included research about the environment of collaboration that investigated the social and physical factors that enabled or restricted teacher collaboration such as organisational rules and regulations, leadership of headteachers, administrative support, provision for information and communication technology (ICT) within the school and teachers' autonomy in constructing teams and deciding norms of collaboration. Finally, studies that looked into

the process of collaboration were combined under the ‘Nature of collaboration’ category. These studies discussed the nature and process of forming communities of practices and the way collaboration among teachers are performed. A summary of the categories can be found in Table 3.

Table 3: Research in school-based teacher collaboration between 2011 and 2019

Theme	Number of studies (n=177)	Countries where studies conducted
Perceptions of Collaboration	14	USA (8), UK (1), Ireland (1), Italy (1), South Africa (1), Bangladesh (1), Philippines (1)
Impact of teachers’ Collaboration <ul style="list-style-type: none"> • Collaboration and TPD • Teacher collaboration for school improvement • Collaboration and student attainment • Collaboration and inclusiveness 	71	USA (15), UK (8), China (5), Netherlands (5), Spain (7), South Africa (3), Australia (3), Canada (3), Finland (2), New Zealand (2), Israel (2), Other European Countries (11), Singapore (1), Latin American countries (2), Indonesia (1), Bangladesh (1), Hong Kong (1), Taiwan (1)
Environment for collaboration <ul style="list-style-type: none"> • Collaborative culture • Factors influence teachers’ collaboration • Virtual collaboration 	52	Australia (3), USA (16) UK (5), Other European countries (7), Canada (5), South Africa (3), Sweden (3), Australia (2), New Zealand (2), China (1), Philippines (1), South Korea (1), Taiwan (1)
Nature of collaboration <ul style="list-style-type: none"> • Collaboration as a norm of a community of practice • Mode of collaboration • Autonomy and collaboration 	40	USA (10), UK (6), Other European countries (5), Denmark (2), Ireland (2) Australia (2), Greece (2), Japan (2), Canada (1), China (1), Bhutan (1), Philippines (1), Taiwan (1), South Africa (1), Singapore (1), South Korea (1), Hong Kong (1)

Although the main aim of this section is to present a summary of studies in the school-based teacher collaboration between 2011 and 2019, earlier studies and scholarly writings were also used to support or challenge the studies in this review. As discussed earlier (in Section 3.2) for this, I used my prior knowledge from extensive relevant reading research articles, books, and websites of relevant organisations. Moreover, a snowballing technique (Greenhalgh & Peacock, 2005) involving reading, and potentially including the references of the publications, was also consulted in this review to find earlier and wider concepts to make meaning of the findings of the studies identified through the systematic process in this chapter.

3.4.1 Teachers' perception of collaboration

The studies that investigated teachers' perceptions of collaboration mainly gauged either how important they feel collaboration is or their experience of collaborative activities. These studies revealed that teachers are mostly in favour of collaborative culture (Casserly & Padden, 2018; Gurl, 2019; M. S. Rahman, 2019). Teachers think that joint activities with their colleagues are helpful for their professional development and meeting the learning needs of students. However, when asked about their collaborative practice, in spite of being very positive, teachers reported a low occurrence of collaboration in their day-to-day practice (Gurl, 2019; M. S. Rahman, 2019). For instance, teachers think that co-teaching can address students' special educational needs (Casserly & Padden, 2018; Ricci et al., 2017). Yet, Casserly and Padden (2018) found that, in Irish multi-grade classrooms, the withdrawal of pupils for supplementary support remains the dominant approach in the context researched. Similarly, Rahman (2019) revealed that teachers, in Bangladeshi primary schools, claimed that peer observation and feedback along with headteacher support were highly important for their professional development. Nevertheless, the frequency of those activities reported by the same respondents was considerably low.

One of the most frequently mentioned reasons behind these discrepancies is lack of time (M. S. Rahman, 2019; Ricci et al., 2017) and skill of collaboration (Themane & Thobejane, 2019). An alternative explanation could be that the collaborative aspects teachers are asked about are prescribed by external agencies (i.e. teacher educators or academics) which the teachers were persuaded to perceive as important. (Canonigo, 2016), in a study in the Philippines, argued that such a situation, collaboration may be hindered. What teachers understand by collaboration was rarely examined in any studies although such perceptions may guide the way for teacher collaboration. Only one study investigated what teachers understood by collaboration. Pancsofar and Petroff (2016) investigated teachers' understanding and practice of co-teaching in the Mid-Atlantic region of the United States and found that teachers understood this to mean one teacher planning and leading the lesson whilst another acted as a learning assistant, helping individual students.

How teachers' perception of collaboration can be formed was another under-investigated area. One study (Zagona, Kurth, & MacFarland, 2017) within this literature search reported a study took place in six schools in a western school district of the United States and suggested that there are three skills associated with collaboration: participating in teams, sharing responsibility for decision making and working with other professionals to plan for the implementation of goals and objectives. Zagona, Kurth et al. (2017) also suggested that special educators felt more prepared to collaborate with their colleagues, as compared with general education teachers. The researchers noted that future research is needed to investigate what makes such differences between special and general educators. While this provided the link between readiness and perception, the wider cultural contextual factors that may have an influence on their perception remain under-investigated.

Teachers' perception about their status (strength, competence and talent as a teacher) was found to be related to teachers' engagement with colleagues (Bridwell-Mitchell & Fried, 2018). This study, in four public elementary schools in a north-eastern city in the United

States suggested that the teachers who perceived themselves of high value, but whose colleagues would not agree with this, interacted more with the members of the community. This was because individuals who perceived their status as higher than others may be viewed as having more valuable qualities, and in turn, they received greater esteem, prestige, honour, and respect.

Briefly, the studies in this category revealed the perceived importance of collaboration by teachers and suggested that teachers perceived collaboration as conducive to their professional development and students' attainments. However, studies also showed that such perceptions did not guarantee collaborative practices among teachers because of lack of time and of skill in collaboration practices. Yet, it was revealed that perceptions about teachers' own status play an important role in collaboration. Teachers who perceive their status as higher tended to collaborate more.

These studies, however, did not reveal what teachers mean by collaboration. Moreover, these, perception studies were predominantly quantitative and often use Likert scales mainly to understand the importance teachers attach to the topic and do not allow us to understand what teachers mean by collaboration. Hence, my study aimed to understand teachers' perceptions about collaboration.

3.4.2 Impact of teachers' collaboration

In these studies, the concept of collaboration has been exploited as a tool for achieving various goals such as teacher professional development, school improvement, and teaching. The studies indicated that teachers' collaboration broadly impact positively on teachers' professional development, overall school improvement and students' attainment. Some of these studies showed the link between collaboration and inclusivity in schools. The assumption these studies considered was that in a collaborative group, teachers are likely to participate in shared reflections on teaching practice with their peers, to share their experience and ideas, and to provide feedback (Cohen, 1976; Goddard, Goddard, &

Tschannen-Moran, 2007). A teacher who works with other teachers in a team is more likely to receive informal evaluations by their colleagues than non-teamed teachers (Bredo, 1975).

Teachers professional development

Although Teachers' Professional Development (TPD) is a very broad term and many things that are described under different categories in this section (3.4) can come under this, such as curriculum reform and school improvement, this particular section combines the studies that dealt with teachers professional practices and collaboration. A range of studies examined whether collaboration helps teachers to develop a particular or a set of skills or professional relationships. The most common focus of the studies in this category was the relationship between teachers' collaboration and their teaching.

For instance, several researchers analysed how collaboration with colleagues helps teachers to develop their instructional practice (Loima, 2016; Rempe-Gillen, 2018; Sears, Kersaint, Burgos, & Wooten, 2019; Strahan, Geitner, & Lodico, 2010). Most of these studies indicated that teachers likely bring a positive change in their classroom practice by collaboratively enhancing subject knowledge (Sears et al., 2019), joint problem-solving endeavours (Johnson, 1976; Loima, 2016), coaching (Strahan et al., 2010), making meaning of practices (Danielowich, 2012), sharing experiences and resources and reflecting on each other's practice (Dunne et al., 2000). The studies suggested that through collaboration teachers develop professional skills, share experiences and ideas with colleagues by storytelling, develop reflective practice and enhance teachers' morale. These studies, however, did not show any direct relationship between teachers' collaboration and their classroom practice. These studies indicated that through collaboration, teachers construct and reconstruct skills which may impact positively on their teaching. Moreover, the opportunity for formal collaborative activities are often restricted, for instance among Thai teachers (Lomia, 2016).

In contexts where formal collaboration for professional learning is limited due to workload and shortage of teachers, informal storytelling is identified as an effective informal collaborative activity for professional development. In such a context (e.g. Lomia, 2016) sharing experiences through informal storytelling is one of the ways of restructuring knowledge and learning which has received a significant amount of attention of scholars. Storytelling is a compelling method of sharing experiences in order to make sense of our world right here and now. Stories build kinship, allow a glimpse into other people's lives and perhaps let the teachers see themselves in a story (Kozlovich, 2002).

Brown and Gray (1995) noted that stories can be used to induct new members into a culture. They showed that Xerox photocopier engineers in the US found it more effective to learn the job by listening to colleagues' stories than by reading a handbook. Somerville and Abrahamsson (2003) suggested that coal miners also often shared 'accident stories' as a way of learning when accidents are likely to happen.

However, as long as thirty years ago Little (1990) argued that we have scant knowledge about the effect of storytelling on teachers' classroom practice. She argued that storytelling could be a weak substitute for more robust forms of sharing experiences (e.g. peer observation). Especially when formal collaborations are restricted by the lack of time and resources, teachers use stories to gain information. Such stories may include professional complaints and can offer only incomplete accounts of a complex and subtle performance, which may exacerbate rather than relieve the teachers' uncertainties of the classroom (Little) 1990. Yet, a later study from USA indicated that storytelling can play a significant role in the creation of collaborative space that fosters teachers learning and thus breaks through the conventional norms of teaching (Shank, 2006).

Skills development: The other set of research discussed how collaborative efforts helped teachers to strengthen professional skills that support their classroom teaching. For instance, through collaboration teachers developed evidence-based practice (Van Gasse,

Vanlommel, Vanhoof, & Van Petegem, 2017), inquiry skills (Butler & Schnellert, 2012) and reflective practice (Godínez Martínez, 2018). These studies suggested that teachers' motivation for using data and evidence for changing teaching is more associated with their collaborative practice than their attitude towards evidence-based practice and self-efficacy. This means, teachers who are collaborative are more motivated to use evidence for changing their practice than the teachers who have positive attitudes towards and efficacy for using evidence but are not collaborative. Therefore, teachers who work collaboratively are more likely to be motivated to use evidence for changing their teaching than the teachers who have positive attitudes towards and self-efficacy for such practice but do not collaborate. These studies also revealed that stronger collaborative relationships result in richer co-regulated inquiry among teachers. of collaboration (Dobber, Akkerman, Verloop, & Vermunt, 2014). Other studies that linked collaboration to skills development include Hunzicker (2012) who identified that collaboration practice enhances teachers' leadership skills, and self-efficacy among secondary school teachers in India (Sehgal, Nambudiri, & Mishra, 2017).

One study (Kelly & Cherkowski, 2015) tried to establish a learning community of classroom and literacy intervention teachers across one school district of the USA and indicated that an intervention which was based on the notion of teacher collaboration allowed the participant teachers to share resources with colleagues between and across schools. While they shared resources, they created space where they had opportunities for sharing their knowledge and experience. Another study (Godínez Martínez, 2018), from Mexico, showed that when teachers have such space characterised with opportunity, time and assistance from others, they can develop a reflective practice that helps them to evaluate their work and change their practices when necessary. These support findings from older studies from the USA which suggested that in collaborative teams, teachers receive more feedback than teachers who work individually (Cohen, 1976; Bredo 1975).

Some studies suggested trust and mutual interest as pre-requisites for effective collaboration (Friend & Cook, 2013; M. Fullan, 1995; A. Hargreaves & O'Connor, 2017; Little, 1999), whilst others showed that participating in collaboration can help build trust and mutual relationships (Devlin-Scherer & Sardone, 2013). Devlin-Scherer and Sardone (2013) found a multi-year collaboration between two faculty members from a University in the USA resulted in a long-lasting professional relationship built on trust and mutual interest. So, while trust and mutual interest are necessary for the collaborative endeavour, collaboration establishes the emotional aspects of the relationship.

Contributing to teachers' morale

Two studies are particularly interesting as they show the effect of collaborative practice on the emotional aspects of teachers. Hsu (2019) study, in a US university context where a university scientist and teaching assistants helped nine high school students to learn scientific practices, found that when teachers and students are engaged in cogenerate dialogue, that is, conversation among different stakeholders to reflect collective experience (Roth, Robin, & Zimmermann, 2002), they can manage their emotional concerns through respectful communication. However, in Hsu's study, teachers were trained to use cogenerate dialogue, which arguably made the research context artificial. When the participants of the study were trained how to behave the research setting was no longer a natural one. The emotional concerns of humans are situation and agency-based, and expression of emotional concerns may depend on the event and the agency of the actor. If one is told how to express his/her emotion, the expression may deviate from his/her authentic behaviour (it may help them to express themselves more effectively in a specific situation, but their expression may change). Hence, Hsu's study explained the relationship between collaborative activities and management of emotional concerns in a context where participants were trained in specific behaviours.

In contrast, Datnow (2018) investigated teachers' teams in two US elementary schools and observed the activities in context to find how collaboration helped the participant teachers manage emotional issues. This study suggests that a collaborative school culture allows time and space to innovate and brings 'joy' to teachers' professional lives. The teachers in Dantow's study reported satisfaction of their workplace with very good professional and social relationships among them. The time and space described in this study may allow teachers to share their commitment and express their struggles. This sharing is important because this is how teachers may strengthen solidarity (Hooks, 2000; Martinez, Valdez, & Cariaga, 2016). The relationship between collaboration and teachers' solidarity, however, have not been found to be explored in the existing literature.

Collaboration, school improvement

This set of studies discusses teachers' collaborative efforts for curriculum change, effective school operation and turning the school into a learning organisation.

Collaboration and Curriculum reform: Curriculum reform is a process of significant change within and across schools. This set of studies examines how teachers collaboratively contribute to initiate and continue curriculum reform in schools (Craig, You, & Oh, 2013; Morton & McMenamin, 2011; You & Craig, 2015).

Morton and McMenamin (2011) explained how teachers in New Zealand in collaborative teams worked together to develop a new range of curriculum exemplars, support materials, and teachers' guides. The teams included classroom teachers; curriculum advisors; assessment facilitators, who are contracted to work in schools providing in-service professional development; parents; and teacher educators. The team members met on a regular basis. In the initial phase of the project team members became oriented with the project aims and with other members. Gradually, they started sharing their experience of learning to use narrative assessment, including what had been challenging for them and

what had proved to be less difficult than they expected. Morton and McMenamin (2011) suggested that through participating in the project teachers had the opportunity to look closely at the key competencies in The New Zealand Curriculum. Their collaborative professional learning gave them the language and framework to consider what these capabilities would look like in their classrooms.

You and Craig (2015) showed how a Physical Education (PE) department at a US school demonstrated collaborative curriculum-making characterized by both diversity and harmony among the participating six PE teachers. The regulators for harmony within the diversity were also explained in their paper. They argued that the teachers in the collaborative team embraced their roles as PE curriculum makers rather than acting like coaches during the curriculum-making process. Thus, balanced participation was maintained which, according to Cohen (1976) is crucial for effective and sustainable collaboration. They also argued that because the school treated diversity positively, the collaboration among teachers of different beliefs was harmonious. Through such harmonious collaboration different philosophical points were discussed and adopted in the PE curriculum in the school.

While these studies discussed the collaborative process for curriculum development, they also revealed the characteristics of effective and sustainable teams. These are: acquaintance and positive relationships among team members, balanced participation (not hierarchical) and acknowledgement from the leaders (administration). Jao and McDougall (2016) who brought together Grade-9 applied mathematics teachers from eleven schools across four neighbouring public school boards in the same geographic area of a large urban city in Southern Ontario, Canada, also revealed similar findings which suggest that teachers are unlikely to collaborate with strangers or with other teachers with conflicting personalities.

Some of the studies, from both the global north (USA) and south (China), also described the process through which teachers cope with the turmoil of the change (Fu & Clarke, 2019; Ketterlin-Geller, Baumer, & Lichon, 2015). These studies mainly investigated teachers and administrators' experience of curriculum reform. Teachers' agency was one of the foci of these studies and researchers investigated how teachers' agency contribute to curriculum change in schools. For instance, Fu and Clarke (2019) noted that teachers at the local school level in China developed collective agency during a nationwide curriculum reform which helped them to accommodate the abstract and overwhelming reform mandates into concrete and manageable teaching practices.

Creating collaborative culture: Some studies suggested that through collective endeavours teachers and students can strengthen the collaborative culture within the school. Yao (2018) found that when teachers and children in Chinese kindergartens worked collaboratively in a multicultural context, children can learn about the diverse cultures through cultural game-based education and greatly enhance their collaboration abilities as a team member.

Studies also revealed how collaborative effort among teachers in China (Fu & Clarke, 2019) and between teachers and demonstrators in the US context (Ketterlin-Geller et al., 2015) can create a collaborative culture. A collaborative culture is important for a sustainable collaborative approach to teachers' schoolwork. Fu and Clarke (2019) suggested that through a collaborative curriculum development process a group of Chinese high school (grade 10-12) physics teachers developed a schoolwide collaborative culture. The weekly meetings of the physics teachers produced a platform where teachers created collective agency. Frequent social interaction outside of the meeting developed a good and sustainable relationship among them.

Ketterlin-Geller et al. (2015) examined an anecdotal story of a principal of an elementary school and argued that a shared vision between teachers and administrators may create a

culture of collaboration. Through the shared vision they can focus the school's priority on collaboration and guide decisions about school policies and procedures that impact the use of time and resources.

One study drew on teachers' perspective of a 'learning organisation' in a difficult educational situation (Moloi, 2010). In a learning organisation, employees create, acquire and transfer knowledge in a collaborative manner, and schools, being a learning organisation, make students succeed (Chan, 2009). In her article, Moloi (2010) sought what teachers mean by a learning organisation. She took the context of the school into account when analysing the data. Although in Moloi's study, 'difficult educational situation' is not precisely defined, clear reference was made to ill-resourced schools in Gauteng province of South Africa, a black settlement area. However, it took socio-economic context into account to examine the factors that facilitate schools as a learning environment. Her study identified eight themes that contribute to developing schools as learning organisation, among which collaboration was a core aspect. Moloi's study showed how teachers' collaboration, a difficult context and the concept of a learning organisation may be interrelated.

Teacher collaboration and students' achievements:

Some studies, mainly with quantitative approaches, revealed a positive relationship between teachers' collaborative work and students' attainment. Those studies suggested that teachers collaborate on curriculum reform, teaching practice, and professional development, and that all of these collaborations have a positive impact on their students' attainment.

Goddard et al. (2007) surveyed elementary teachers and students in 47 elementary schools in a large school district in the US to explore the link between teachers' collaboration and student achievement. The study suggested that in schools where there is a high level of

teacher collaboration, 4th grade students are more likely to have higher grades in mathematics than in schools where there are low levels of teacher collaboration.

M. Ronfeldt, Farmer, and McQueen (2015) contribute further to specify the types of collaboration that have the greatest effect on students' test scores. They analysed a large set of survey data from a school district in the US. They categorised teachers' collaboration into three instructional domains namely, (i) collaboration about instructional strategies and curriculum; (ii) collaboration for identifying students' needs and responding to those; and (iii) collaboration about assessment. The study indicated that teachers' involvement in collaboration about assessment results in better student achievement in mathematics and collaboration about curriculum and instructional strategy results in better student achievement in reading.

Both of the studies (Goddard et al., 2007; M. Ronfeldt et al., 2015) speculated that through collaboration teachers learn how to improve their instructional practice and that contributes to students' achievements. However, the quantitative approaches of the studies were not able to test this theory because, whilst the research does show a link between teachers' collaboration and students' attainment, the findings do not identify the pathways or causal relationships that cause these outcomes. In brief, the studies in this category have shown that teachers' collaboration is positively linked with students' test scores, especially in literacy and numeracy.

Collaboration for inclusion

Inclusivity is an essential criterion for effective collaboration because in a non-inclusive environment collaboration is less likely to happen or be sustained. Equity in participation is especially crucial to ensure balanced participation and sustainable collaborative endeavour (Cohen et al., 1979). Several studies found a positive effect of collaborative working on establishing and promoting an inclusive environment in schools. Whilst an inclusive

environment is required for collaboration in a school, a collaborative approach amongst teachers to their work, in turn, can be used to promote inclusivity among students within classrooms and other stakeholders outside of classrooms. In these studies, teachers were considered as agents of change for making schools inclusive organisations. Among these studies, Themane and Thobejane (2019), Zundans-Fraser and Bain (2016) and Bouillet (2013) researched collaboration and inclusiveness in general, while Salter, Swanwick et al. (2017) and Bonati (2018)'s research was in a special needs education context. Zundans-Fraser and Bain (2016) defined an inclusive team as a team including different stakeholders who are engaged in different tasks in a comprehensive programme design process in inclusive education. The team in their study consisted of academics from a university and school teachers. The study suggested that collaborative endeavours help teachers to produce a more coherent programme with transparent design, structure and content for students and teachers.

Salter, Swanwick, and Pearson (2017) investigated collaboration among mainstream teachers and teachers of children with hearing impairments in secondary classrooms in the UK. The study (Salter et al., 2017) revealed that effective collaboration among teaching staff, teaching assistants and teachers of the deaf can ensure appropriate expectation of teachers, hearing students and the deaf students. Often the teacher, deaf students and their fellow students undermine the capability of the deaf student. When teachers, teaching assistants and the teachers of the deaf work collaboratively, they can ensure appropriate expectations amongst teaching staff and all students. This eventually supports improved learning outcomes of the deaf students.

Some studies indicated the challenges to collaboration for improving the inclusiveness in the school. For instance, Zundans-Fraser and Bain (2016), in their study in Australia, noted that designing an inclusive programme collaboratively was more time-intensive. Bouillet (2013) found a lack of well-organised and defined collaboration in Croatian schools, due to

a lack of support from teacher educators. Therefore, collaboration in the inclusive education process was based on the individual collaboration of some parents of students and teachers.

Most of the studies in this category are in a context where the researcher established a collaborative model, implemented it and studied the effectiveness and the process of collaboration. In some studies, the researchers themselves were participants of a planned collaborative endeavour. For instance, Zundans-Fraser and Bain (2016) studied the role of collaboration in a project that aimed at designing a programme of inclusive education. Similarly, Bonati (2018), being a co-lead of a teachers team, in an Australian school setting, aimed at developing collaborative project planning, studied the process and effectiveness of the collaboration. In such situations, the teachers were fulfilling the researchers' plans. Their day-to-day regular collaboration and the effects of those collaborative activities may not be reflected in such a condition.

However, some studies investigated teachers' collaboration in their day-to-day situation. For example, Themane and Thobejane (2019) considered teachers as a change agent and studied how they make the school environment inclusive through their day-to-day natural collaboration. Their study, in a South African context, found that teachers were resilient in the face of a lack of resources to implement inclusive education. These teachers did their best despite a lack of capacity to implement inclusive education and showed the willingness to effect change; when they collaborated with others, they achieved more.

Yet, another weakness of the existing literature is that, when teachers' collaboration and inclusion were studied, the gender aspect appears to be mostly overlooked. A German study (Mora-Ruano, Gebhardt, & Wittmann, 2018) showed that there are differences between male and female teachers' engagement in collaborative activities. The study suggests that women collaborate slightly more than men. However, their quantitative analysis did not offer the reason behind such a discrepancy between male and female

teachers' collaboration. In the current context of the Sustainable Development Goals (SDGs), the analysis of the nature of male and female teachers' collaboration is important because it might help us to identify any inequality between male and female participation in learning. To ensure the elimination of all forms of exclusion and marginalisation, and disparities and inequalities in access, participation and learning outcomes at all levels of education (United Nations, 2018) it is necessary not only to ensure the access of women to teaching jobs but also to allow them to engage in all forms of professional development opportunities including day-to-day collaboration. In the context of Bangladeshi primary education, the government has made provisions to encourage women to join the teaching profession by allowing them to enter with lower qualifications than men in primary teaching (J. I. Mullick & Sheesh, 2008) which has led to the percentage of female teachers in primary school (64%) being higher than male teachers (BANBEIS, 2017). However, this route to teaching may have an unintended consequence on women teachers, lowering their status in the school. This can thereby restrict their engagement in collaborative professional activities. In terms of collaboration and continuous professional development in schools, it is therefore worthwhile to examine whether there is any differences between male and female teachers' opportunities and engagements. The findings may support efforts to promote the inclusion of all teachers in decision making and day-to-day professional development.

In summary, studies in this category indicated that through collaboration teachers were able to design curricula that promote inclusive teaching-learning environments and ensure inclusive classroom and work environments. The studies also revealed how inclusive environments can foster collaboration. Nevertheless, the relationship between inclusivity and collaboration in a regular day-to-day school context is rarely or incompletely investigated. The gender aspect is also rarely considered in the literature on teachers' collaboration and inclusion.

3.4.3 Environments of collaboration

These studies revealed the contexts that support or restrict collaboration. They mainly discussed three aspects of a collaborative environment. First, what the collaborative environment looked like (collaborative culture) and what were the consequences of different environments. Second, the factors influencing teachers' collaboration were identified. Finally, a set of studies discussed the virtual environment of collaboration through the internet.

Collaborative culture: Researchers explored collaborative culture within online professional learning communities (Battersby & Verdi, 2015), in diverse ethno-racial contexts of schools (Stearns, Banerjee, Mickelson, & Moller, 2014), in an after school informal learning programme and within a classroom context (Cozza, 2010).

In a theoretical paper, Battersby and Verdi (2015) advocate that professional learning communities (PLC) are a legitimate form of professional development and an online PLC offers music teachers a collaborative culture. In their article, they showed that music educators could maintain their professional development through the use of online professional learning communities (OPLCs). However, in their writing, there was very little reference to the culture of the interaction of the members of the community.

In contrast, Stearns et al. (2014) took culture rigorously into account. Although they did not investigate a culture of a collaborative group, they tried to understand how a collaborative environment minimised the potentially negative influence of cultural difference in a culturally diverse context. They mapped a triangular relationship between cultural diversity, job satisfaction and collaboration. The cultural diversity of the teachers and students were the foci of their research, and they investigated how collaboration affects the difference in job satisfaction among different ethnic teachers in kindergarten schools in the US. They found that White teachers are significantly less satisfied than African-American and Latino teachers, especially when they taught in majority non-White

classrooms. The researchers suggested that a collaborative professional community moderated the negative influence of teacher-student ethno-racial mismatch on White teachers' job satisfaction.

Cozza (2010) studied a Professional Development School programme which was characterised by student focus and collaborative classroom culture. The participants, who were teacher candidates enrolled in an initial teacher training course in a US university, of the programme believed that everyone was a learner. Cozza's findings showed that collaboration was embedded in such a culture as the members worked together to offer quality, standards-based curriculum in order to improve student outcomes. Moreover, through their ongoing meetings, teachers gained knowledge of curriculum and best practices for teaching math and science.

While the above studies included formal collaborative culture, Lom and Sullenger (2011) put emphasis on the informal collaborative and self-directed learning context. They studied a collaboration of researcher, teachers and members of science organisations in Canada, teacher educator and university science graduates. The study provided an understanding of the potential for collaboration in an informal learning process. They called their project an informal learning space because the collaboration of teachers, researchers and members of the science organisation has created and implemented an after-school science programme for school children. However, the space had a formal structure (a study about an informal collaborative space, especially for teachers' collaboration, was not found in this literature search). Yet, an important aspect pointed out in this study was that the process of studying in an informal learning context was challenging as it required teachers' active participation, their permission for studying them and trust between researcher and research participants, and reflection.

Factors influencing collaboration: These studies explored the conditions and factors that promote or hinder collaboration. Most of these studies investigated organisational-level

(Alharbi, Athauda, & Chiong, 2018; Bredo, 1975; Castro Silva, Amante, & Morgado, 2017; Cohen et al., 1979; Fischer, Kollar, Stegmann, & Wecker, 2013; Forte & Flores, 2014; Kwakman, 2003; Nouri, Cerratto-Pargman, Eliasson, & Ramberg, 2011) and personal-level factors (Heikkinen, Jokinen, & Tynjälä, 2012; Jao & McDougall, 2016; Kwakman, 2003; Lofthouse & Thomas, 2017; Steyn, 2015) that influence teachers' collaboration. The organisational-level factors included the nature of leadership, workplace culture and structure of the system while personal-level factors included professional and psychological aspects such as collegial relationship, personality conflict and personal experience of collaboration.

Studies suggested one important factor for effectiveness of collaboration which was teachers' choice: can they make the decision about whether or not to participate? If teachers were allowed to identify and engage in collaborative activities that they felt important was beneficial, their engagement in such situations became spontaneous and active. Similarly, Thornton (2006) suggested that where decision-making power was curtailed, the scope of collaboration became limited. His study in secondary schools in Bangladesh found that teachers', and even headteachers', decision-making powers were controlled by the school management committee (please find details about school management committee in Bangladesh in Chapter 2). He argued that such conditions restricted collaboration. Where teachers had the power of making decisions whether and to what extent they wanted to be engaged in a collaborative activity, Canonigo (2016) called it a 'free collaborative situation'. Some scholars suggested that free collaboration was an environment where the collaborative activities have not been structured, and there was no instruction or guidance, such as how groups should be formed, how to resolve problems or how members should interact with each other (Fischer et al., 2013; Monteiro & Morrison, 2014; Nouri et al., 2011). Yet, teachers might also voluntarily enter into collaborations they believe will be beneficial that also have some degree of structure. While these studies

suggested that freedom of collaboration encouraged teachers to engage in the joint activities actively, whether those collaborations had an impact on teachers' professional learning and their classroom practice were not revealed.

In contrast, some studies argued that a structure for collaboration (often provided by school management or local authority) ensured effective engagement (Conderman, 2016; Jao & McDougall, 2016; Jones & Peterson-Ahmad, 2017; Steyn, 2015). These studies suggested that a pre-planned systematic process could enhance the effectiveness of collaboration for the professional development of teachers. For instance, American academic Conderman (2016), in a theoretical paper, suggested a series of predefined steps found useful for making collective team effort effective. Similarly, in an American context, Jones and Paterson-Ahmad (2017) suggested a structured mini-conference strategy for teacher-parent collaboration for better special education teaching.

However, Dobber, Akkerman et al. (2014) found that when the specific activities and goals of a group determine teachers' engagement in group activities, who regulates collaborative activities was less important. Their research, in a teacher education context in the Netherlands, compared collaborative activities of groups of student-teachers with different goals in different groups. In some groups, a teacher educator took the lead, while in others the student-teachers regulated their collaborative activities. They found that when a decision-making process was involved (e.g. in research activities), the groups relied on a leader. In contrast, when the process of collaboration (e.g. reflection) itself was more important the group became co-regulated.

Style of leadership plays a key role in such an environment. Castro Silva, Amante et al. (2017), in a Portuguese school, found that a school leader's emotional and informational support could enhance collaboration. Teachers who perceived that they were supported and encouraged for innovation, were more likely to participate in collaborative activities

related to planning and development of curricular activities. Encouragement for innovation implied that teachers have authority in shaping their collaborative activities.

The personal factors of teachers that influence their collaboration include professional and emotional matters of an individual teacher (Jao & McDougall, 2016; Kwakman, 2003) and their previous experience (Thornton, 2006). Jao and McDougall (2016) found that teachers became disaffected when working with colleagues whom they did not connect with on a personal level or who were not interested in the collaborative process. Conflicting goals and personality conflicts were also barriers to collaboration reported by the participants of Jao's study.

Thornton (2006) found that teachers' previous educational experience was also an influencing factor for teachers' collaboration. This study took place in the Bangladeshi context. Unlike this current study which takes place in a primary school, Thornton's study was in secondary schools. Yet, teaching practices between primary and secondary level have many things in common, including the teacher-centric teaching. He suggested that in this context, teachers experienced teacher-centric education throughout their educational and professional life (i.e. in their own schooling and in training colleges). These resulted in teachers having very little understanding of the role that collaborating with or supporting each other can play in their work.

Overall, the existing studies investigated the factors that influenced teachers' collaboration in either a personal or organisational level. The effect of the structure of the wider society was rarely acknowledged. Another pattern in these studies was that a significant number of the studies in this category advocated planned and systematic processes and strategies to enhance the effect of collaboration. However, such pre-planned and structured collaborations could become difficult to sustain and embed. A systematic approach and strategy may help to achieve goals of a collaborative effort within a short time and effectively, but it may eventually incur additional work hours or workload on teachers.

This is why practitioners often find establishing such collaborative practice difficult. On the other hand, collaboration without specific goal and framework may not be effective for TPD.

Some of these studies showed how technology can partly solve this time issue and effective leadership can influence the community for collaboration. Yet, understanding the cultural aspects that can empower collaboration may help us to adapt and use the systematic strategies suggested by the studies effectively. Unfortunately, such a study that investigates the cultural aspects and the nature of collaboration was not found in the studies described under this current theme.

Virtual collaboration: The idea of virtual collaboration is becoming more widespread and practised. The busy and complex daily schedule of teachers has been one of the barriers for collaboration and modern technology is being considered as a solution for this. It allows for asynchronous collaboration, meaning even if teachers are free at different times, they are able to work together and professional conversations/interactions can take place over days, weeks or more. The concept of computer-supported collaborative learning (CSCL) is widely being used for both teacher and student learning. Studies in the area of CSCL revealed the process of virtual collaboration (Naylor & Gibbs, 2018; Wang, 2010; Zhou et al., 2018), its impact on learning and professional development (Cunha Jr, van Kruistum, & van Oers, 2016; Doumanis, Economou, Sim, & Porter, 2019), the factors that influence online collaboration (Bower, Lee, & Dalgarno, 2017; Hernández-Sellés, Muñoz-Carril, & González-Sanmamed, 2019) and comparisons between online and face to face collaboration (Lin, Hu, Hu, & Liu, 2016; Magen-Nagar & Shonfeld, 2018; Siampou, Komis, & Tselios, 2014).

In a study that explored an international collaboration between college students and pre-service teachers in Norway and the UK, it was found that mobile technology allows teachers to collaborate remotely and to experience authentic classroom sharing (Naylor &

Gibbs, 2018). Teachers can take photos and videos of their classroom and share with colleagues outside of the school and even beyond the national border. Wang (2018) showed that the process of online collaboration of student teachers in Singapore involved three levels. First, reporting, when student teachers report on collaborative online groups what they had done and what they were going to do. This level involves informing what teachers had done rather than explaining their experience of those tasks. Such postings are primarily made to inform fellow students and teachers about their activities and usually did not have further progress. The second level of communication involves providing information and sharing resources and experience. The third stage involve a two-way interaction level where group members not only report progress or share things but also negotiate meanings, discuss ideas and provide feedback or comments to each other.

Yet, there have been issues with computer-supported collaboration. In a blended learning context (blending virtual and real-world collaboration), Bower et al. (2017) showed that there were pedagogical, technological and logistical factors that enabled or restricted collaboration in an Australian collaborative learning context. While virtual reality helped remote participants to collaborate and encouraged shy student teachers to participate, overlapped online conversation (audio), repetition, issues viewing shared screens (such as fragmentation and delay), unfamiliarity with how to gesture were some of the barriers identified for online collaboration.

However, Lin, Hu et al. (2016) suggested that both virtual and real collaboration were indispensable in stimulating Chinese teachers' learning community as well as their collaborations. When used together, they draw from each other's advantages and compensate for the deficiencies. Moreover, in both cases, participants mutually explored the problem, with few disagreements.

In these studies, it should be noted that virtual collaborations were designed with a pre-set agenda by outsider researchers. Participants' views of collaboration were not presented in

any of these studies. Although some studies explored participants' experiences of collaborative work (Bower et al., 2017), what they meant by collaboration and what they wanted to do collectively were not heard. How the social and historical construction of virtual collaboration mediated the collaborative activities was also ignored. How people behaved online may be affected by how culturally they saw the use of online spaces.

Some studies emphasised the relationships among the members in online collaboration. Wang (2010) considered the relationship among participants as vital to the collaborative team, and thus they developed a team based online personal relationship to boost the effectivity of collaboration in Singapore. Most of the studies in the area of teacher collaboration emphasised the value of instructed collaboration and argue that without proper plan and instruction any goal of collaborative effort may be compromised. While this was the case, the existing understandings about collaboration and the cultural practices among the participants need to be understood to make an effective design of collaborative learning activity.

3.4.4 Nature of Collaboration

The studies in this category revealed the process of collaboration, the relationships among the members of collaborative teams, different types of teachers' collaboration, and problems and potentials of teachers' collaboration. Hence, most of the studies explored how teachers engaged and continued collective activities, with whom they collaborated, the relationships with the partners and the benefits and difficulties they experienced during collaboration. Yet, some studies reflected other aspects with collaboration, such as a change in teaching practice, student achievements etc. Studies that investigated the relationship between teachers' collaboration and any other aspects (e.g. change in teaching practice) also provided descriptions of the nature of collaborative activities in a given context. Thus, those studies were also helpful to understand and define the nature of teachers' collaboration in different contexts. The major themes emerging from the review

of the studies in this category included Collaboration and Community of Practice, mode of collaboration, teachers' autonomy and collaboration.

Collaboration and Community of Practice (CoP)

A significant number of studies have considered collaboration as practices within a community (Lave, 1991). These studies have shown a varied dimension of community that include communities of teachers within (Haver, Trinter, & Inge, 2017; Musanti, 2017) and across (Akinyemi, Rembe, Shumba, & Adewumi, 2019; Carpenter, 2018; Ernest et al., 2013; Hardy & Grootenboer, 2016; E. Hargreaves, 2013; Svanbjörnsdóttir et al., 2016) subject departments, communities of school staff including teachers (Dreyer, 2014) and teacher-parent community (Hardy & Grootenboer, 2016). The goals of communities of practices (CoP) (Lave & Wenger, 2013) might be different, however, the main characteristic of a CoP was a sense of shared commitment, a community and shared ways of addressing recurring problems (Wenger & Wenger-Trayner, 2015). These studies considered teachers as a member of a community characterised with a shared vision and endeavour for achieving shared goals.

In such a community, members' involvements included shared leadership, decision-making, teaching and learning practice (Carpenter, 2018), shared responsibility (Allen, 2013; Carpenter, 2018) and shared belief (Haver et al., 2017). Reflecting on fellow members' practice (Musanti, 2017) and providing feedback (Svanbjörnsdóttir et al., 2016) were also significant characteristics of the activities within a community of practice. The activities within these CoPs were seen as targeted to achieve a common goal, and the activities include sharing resources, ideas and contributing to the community's knowledge.

Another significant characteristic of a CoP emerging from the studies was authenticity. The challenges of the members are identified by the members themselves, the process of solving those and trying the process out were also conducted by the members. Although

leadership was considered as crucial for effective collaboration in a CoP, it had to be conducive to the collaborative environment. In a study exploring UK teachers' experience of teacher learning community, E. Hargreaves (2013) found that the benefits of a learning community were compromised where the practices are imposed on teachers, they were not accommodated sufficiently within other school commitments, leaders were too directive, there was lack of flexibility and where theory drives the practice. Yet, Ernest et al. (2013) who explored teachers' collaboration in virtual learning environments in the UK and Spencer (2016) who looked into teachers' professional learning community in the USA, argued that structured and planned strategies for collaborative activities are essential for better outcomes of the collective endeavour.

Mode of teachers' collaboration: These studies helped to understand with whom the teachers collaborated and the relationship among the collaborators within a school. The studies dealt with teachers' collaboration, within schools, with other teachers within the department, (Akiba et al., 2019; Cajkler et al., 2015; Canonigo, 2016; Castek, Coiro, Guzniczak, & Bradshaw, 2012; Charteris & Smardon, 2014; Shumba et al., 2016), with teachers of other departments (Da Fonte & Barton-Arwood, 2017), and with learning support assistants (Dreyer, 2014).

Collaboration with colleagues within the school was mostly seen as a part of the process of professional development, aimed at improving teaching and learning. Different forms of collaboration within schools found in the literature in this area included co-teaching, mentoring, team teaching, lesson study and peer support. These studies described the process of such collaboration and the relationships among the participants as well as the effects of such activities.

For instance, Friend et al. (2015) distinguished between co-teaching and apprentice teaching by identifying respective purposes and process. They viewed co-teaching through the lens of inclusive education and defined it as a service delivery option for students with

disabilities, as well as those who were learning English as a second language. While in an apprenticeship teaching situation, a novice teacher and an expert teacher collaborated to enhance the expertise of the novice teacher. In a co-teaching context, the process was an ongoing one throughout the school academic year. Both teachers took additional collective responsibilities beyond the co-teaching situation and they enjoyed a shared power over decision-making and implementing plans. They both took accountability for individual and collective student progress. In contrast, in apprenticeship situation, the collaboration took place for a certain period of time such as a semester and only in a classroom context. The expert teacher was responsible for students' outcomes and held the power for making any decision.

The features of lesson study and peer support are similar to co-teaching. Teachers collectively identified issues and potential solution to teaching problems in this model. The process of Japanese lesson study model is ongoing and need-based. Teachers collectively work towards goal setting, lesson planning, research lesson, post-lesson discussion and reflection (Fujii, 2017). In this model, teachers are assumed to be on a similar level and work interdependently. However, Shingphachanh (2019) explored the impact of lesson study in Japan and found an asymmetric relationship between maths and science teachers in a lesson study situation. This study found that there was a greater benefit for science teachers than maths teachers in a collaborative lesson study group. This was because science teachers need mathematical knowledge, but mathematics teachers might not need science knowledge.

Similar to lesson study, the concept of peer support has been characterised with an ongoing relationship to improve responses to common challenges, shared between peers in an equal relationship (M. S. Rahman, 2019). However, Charteris and Smardon (2014) used the phrase 'peer coaching' where peer coaches' roles are in between a master teacher and a peer who elicits reflective practice from colleagues by posing questions as and when

necessary in the teacher education context in New Zealand. The peer coaches act both as a mentor and a peer. Mentoring involves a power difference between the mentor and the mentee. When investigating the approach of mentoring trainee teachers in post compulsory education in the UK, Thompson (2016) noted that mentors acted as gatekeepers to the profession when they are asked to judge a trainees' competence via the observation process.

Hence, an important and frequently appearing aspect in these studies was the relationship between the collaborators. In almost all of the studies in these (and also in other) themes found that relationship was one of the key aspects that determine the effectiveness of the collaboration. However, there was a lack of agreement among scholars in conceptualisation of an effective relationship for collaboration. While some scholars went against 'free collaboration' and argued for a systematic and planned collaboration (Alharbi et al., 2018; Conderman, 2016; Jones & Peterson-Ahmad, 2017), others found that more liberal and balanced relationship was beneficial (Canonigo, 2016; Thompson, 2016). Thompson (2016) found that peer collaboration was perceived as more helpful for the professional learning of teachers than a mentor and mentee relationship. Canonigo (2016) argued that a non-coercive collaboration encourages deep reflection and avoids the pitfalls of manipulation by school administrators and knowledgeable others and was needed for effective lesson study model. Similarly, Krammer, Rossmann et al. (2018) suggested that when teachers could select members for collaborative teams, they showed more positive ratings of enjoyment, shared responsibility, job satisfaction and collective self-efficacy expectations than teachers who worked in institutionally composed teams. However, they also reported that self-selected teams did not guarantee a higher quality of collaborative teaching.

Autonomy and Collaboration: The relationship between collaboration and autonomy often sounds paradoxical (Vangrieken, Grosemans, Dochy, & Kyndt, 2017). Teachers' autonomy

is often equated to individualism or independence (Moomaw, 2005), which might imply a negative consequence on collaboration. Collaboration is often seen as a contradictory concept to autonomy because collaboration among teachers could occur as a result of administrative regulations and could be controlled and implementation-oriented. Such collaboration might not have any benefit for teacher autonomy (Kelchtermans, 2006). However, recent studies found that there is not always a conflict between teachers' autonomy and collaboration. According to Matsuda and Matsuda (2001) for effective, authentic and spontaneous collaboration teachers should have autonomy. Vangrieken, Grosemans et al. (2017), as they investigated the relationship between autonomy and collaboration in teachers in Belgium, argued that there are two types of autonomy: reactive autonomy entails independence and non-reliance, and reflective autonomy refers to personal choice and freedom to act in a self-directed manner in an inherently interdependent context. While the first one inhibits collaboration, the latter facilitates collaboration.

Additionally, Vangrieken and Kyndt (2019) found three types of teacher profiles in terms of their perception of autonomy: autonomous collaborative, autonomous individualistic and low curricular autonomy collaborative. Autonomous collaborative teachers had high autonomy and collaborative attitudes. Autonomous individualistic teachers had high autonomy but more individualistic attitudes. Low curricular autonomy collaborative teachers reported high levels of didactical-pedagogical autonomy and collaborative attitude but lower curricular autonomy. The teachers with the first type of profile were more collaborative than the teachers with other profiles. Hence, there was not always conflict between autonomy and collaboration. rather a professional autonomy was needed for motivating teachers to take individual and collective accountability for their professional development to improve their pedagogical work (Hyslop-Margison & Sears, 2010).

3.5 Critical reflection on the literature

The review of the literature raises some key points. First, teachers' collaboration was found to be associated with a broad range of positive aspects of process, such as professional development practices, teaching practices (Loima, 2016; Rempe-Gillen, 2018; Sears et al., 2019; Strahan et al., 2010) and outcomes, such as student learning (Goddard et al., 2007; M. Ronfeldt et al., 2015). However, there were many factors that may limit or even negate teachers' opportunity to collaborate or benefit from effective collaboration. There was some evidence that teachers' collaboration was more effective under certain circumstances, such as where teachers are opted in (Canonigo, 2016), there was good relationships among members (Jao and McDougall 2016), where teachers were supported by leadership (Castro Silva, Amante et al. 2017), and teachers had autonomy (Hyslop-Margison and Sears 2010). There were also many situations where teachers might practically have limited opportunity for formal collaboration (Lomia, 2016). Hence, to answer a positivistic question of whether teacher collaboration has a positive impact on their professional development and students' learning, other aspects that influence teachers' collaboration need to be taken into account. The effectiveness of a social aspect, such as teacher professionalism, was contingent on the context in which it was introduced. What works to produce an effect in one circumstance may not produce it in another (Tilley, 2000). Hence, the question to ask is 'what works for whom in what circumstances?' (Tikly 2015 p. 237). That means, rather than evaluating a set of collaborative practices against an expected set of outcomes, the concern needs to be what aspect of collaboration is effective for whom (teachers with what characteristics) and in which circumstance.

Secondly, the literature shows some discrepancies between theories related to teacher collaboration and research practices. While theories emphasise the social and interpersonal relationship necessary for collaboration and learning, very few studies took the relational aspects and the cultural aspects into account, particularly those that went beyond the

institution and consider wider cultural context are very scarce. The few studies that did take relational or cultural aspects into account appeared to be restricted within the organisational level. The wider social and cultural aspects were rarely consulted.

Third, a significant number of studies had established a positive link between teachers' collaboration, their professional development and student achievement. In those studies, it was often found that through collaboration teachers got opportunities for sharing knowledge and thus improve their practice and eventually contribute to students' achievement. Nevertheless, the underlying mechanisms that create the link between teachers' collaboration and student achievement are to be further investigated. There might be several inter-related aspects that contributed to the link between teachers' collaboration and student achievement, or there might be specific elements of collaboration that promote certain types of student success.

Finally, the literature indicates that what teachers mean by collaboration and what is doable for them are rarely heard. They are either asked the extent they feel certain types of collaboration are important or their experience of a collaborative activity.

A positivistic view of the problem: Most of the studies reviewed had seen collaboration as a means to develop teachers professionally and to promote student achievement. While these studies established a link between collaboration and professionalism or student attainment, the complexity of the society where the collaboration happened and where its impacts were noted was rarely taken into account. Most of the studies that looked into the link between teacher collaboration and other aspects took place in an intervention context where the researchers or teacher educators set up activities for teachers adopting the concept of collaboration. Even research that focused on investigating the nature of collaboration in both real and virtual worlds, treating teachers as members of a community of practice, had been conducted in a non-organic situation (Allen, 2013; Haver et al., 2017; Musanti, 2017; Svanbjörnsdóttir et al., 2016). Human behaviour cannot be measured in a

stimulated situation where cause-effect relationship is measured in a controlled context (Pawson, 2013). Implemented practices in such a situation may deviate from teachers' day-to-day activities. For instance, when teachers were instructed to collaborate in a specific way to achieve a given goal, they might not act in a similar way to what they usually do in their day-to-day regular work. Human behaviour and social situations might be influenced by the human agency as well as social structure (Bhaskar, 2013; Pawson, 2013; Tikly, 2015). The relationships between teachers' collaboration and its effect on teachers' professional development and student achievement were not just as straightforward. The social context of the school, cultural and historical tradition of the society the school was located in, teachers' characteristics (interpersonal and professional), and professional norms need to be taken into account when analysing teachers' collaboration and its effects. Furthermore, research that looked at teachers' collaboration in their natural environment was characterised by short-term observation (Carpenter, 2018), semi-structured interviews and questionnaires (Akinyemi et al., 2019; Seo & Han, 2012). These techniques of research often took a snapshot of a situation. Such snapshots might not reveal the whole scenario. To understand the spontaneous social behaviour of teachers, the chronological sequence of social events of their day-to-day professional life needs to be taken into account (Elster, 2015). Therefore, an investigation of teachers' spontaneous collaboration in their uninterrupted territory and cultural routines would be both unique and revealing. Findings of such a study may reveal the existing culture of collaboration. This can contribute to the design of future SBTD and CPD models for teachers adopting collaborative aspects.

The gap between theory and research practice: In theory, social and interpersonal relationships are important for introducing and sustaining collaboration (Hadar & Brody, 2010). DuFour (2004) identified six components of an effective Professional Learning Community (PLC) that is characterised by collaboration. These are: 1) a focus on learning;

(2) a collaborative culture, including shared beliefs, values, and vision, and an atmosphere of trust and respect; (3) collective inquiry into best practices; (4) an action orientation; (5) a commitment to continuous improvement; and (6) a results orientation.

In order for collaborative culture (point 2 in DuFour's list) to be successful and collegial, teachers need to participate in authentic interactions. Teachers should openly share both failures and mistakes, and possess the ability to respectfully and constructively analyse and criticize practices and undergo procedures that promote self-reflection (Marzano, 2013).

From the discussion above, it is clear that to establish and continue a collaborative culture the relationship among the members and the socio-cultural norms are important.

However, in research practice, very few studies took those socio-cultural relationships into account. A number of scholars (Datnow, 2018; Devlin-Scherer & Sardone, 2013; E.

Hargreaves, 2013) highlighted how important those aspects were in collaborative teams.

Hence, to understand the nature of teacher collaboration, the interpersonal relationship and the reasons behind such relations need to be understood. The cultural norms of the society in which the school is situated need to be considered when analysing the collaboration and relationships among its teachers. Moreover, the relationship between the nature of teachers' communities of practice and teachers' collaboration is also an aspect to investigate. Existing studies in teachers' collaboration, predominantly from the global North have mostly taken the organisational culture into account but usually failed to analyse the contribution of the wider culture on the nature of teachers' collaboration.

This is probably because the Western culture is more homogeneous (imposed by mass media, easy communications etc) and therefore taken for granted or 'invisible' to the researchers, who assume that everyone has a similar cultural experience, so culture can be ignored as a factor.

Although several studies investigated teachers' collaboration as a practice within a community and explored the nature of those communities, the influence of collaboration

on shaping the community and vice-versa is an under-investigated area. Studies that looked into collaborative practices in a teachers' community investigated how teachers behave in the community and what they do together. What makes them behave in those ways is still to be understood. How a community creates teachers' identities and how teachers' identities, in turn, shape the nature of the community, are rarely studied.

Relationship between teachers' collaboration and student achievement: Studies that investigated the relationship between teachers' collaboration and student attainment are largely quantitative in nature (Goddard et al., 2007; M. Ronfeldt et al., 2015). The assumption in these studies was that when teachers collaboratively share experience and resources and become reflectively critical to each other's practice, they develop professionally and make a positive change in their practice. The changed practices eventually impact positively on student achievement. However, student success is not a result of a straightforward process. There are multiple conditions that influence student achievement. Klem and Connell (2004) found conditions that influence student success include: high standards for academic learning and conduct, meaningful and engaging pedagogy and curriculum, professional learning communities among staff and personalised learning environments. How teachers' collaboration facilitates those conditions is also an area that demands further exploration.

Teachers' voices: It was interesting to see how teachers were portrayed in studies of collaboration as the concept of teachers' collaboration as presented in the literature might have depended on how researchers viewed the teachers in their studies. If we see teachers as active agents for change, they should have power to determine how they can work together or help each other improve their professional practice. If they are prescribed the way they should work in a collaborative team, one of the main ideas of collaboration, 'spontaneity,' (Friend and Cook (2013) can be compromised. To allow them to exercise

the power over their collaboration, their understanding of collaboration needs to be explored.

In the existing research in the area of teachers' collaboration, the characteristics of collaboration are most often defined by the researchers. Few studies sought to learn teachers' perceptions and experiences, or to ask how important teachers believe collaboration is and how they feel when performing any aspect of collaboration. Emerging professional development models describe teachers as professionals who perform intellectual activities, requiring complex and contextualized decision-making (Butler, Lauscher, Jarvis-Selinger, & Beckingham, 2004). Hence, they should have a voice in not only what and how they should teach but also what and how they should collaborate for their and their students' betterment.

Moreover, Friend and Cook (2013) suggested that collaboration should be spontaneous and teacher driven. A model of collaboration developed by someone else other than the members of a collaborative team (teachers) may be misleading (Canonigo, 2016) because teachers may not be interested in carrying out such imposed collaborations. Thus, this current study argues that there is a need to hear the teachers' voices on teachers' collaboration.

Nevertheless, a free collaboration, without any specific goal and structured framework may also be misleading, especially if the teachers do not have appropriate understanding and skill of collaboration. In that case too, their understanding of collaboration needs to be heard.

Lack of studies in the Global South: The studies cited in this literature review are mostly from a developed country context especially from the US and Europe (please see table on page 37). Very few studies are from Low and Middle Income countries such as South Africa (Bantwini, 2019; Kelani & Khourey-Bowers, 2012; Moloji, 2010; Nel, Engelbrecht,

Nel, & Tlale, 2014);. Research on teachers' collaboration in the contexts that face more challenges in terms of quality education, such as Bangladesh, are very scarce. Two studies were found involving the Bangladeshi context that investigated teachers professional learning community (S. Rahman, 2011) and teachers talking (Thornton, 2006) in a secondary school context. Similar studies in LMIC primary schools were not found. The primary school context in Bangladesh is an interesting area for such research because the teachers in Bangladeshi primary schools, in comparison to schools in global west, teachers suffer from shortages of staff, huge workloads, high teacher-student ratios and ineffective teacher training provision. Collaboration in such contexts will have a different dynamic than what is seen in well-resourced, Western schools.

3.6 Chapter summary and guiding ideas for this study

The discussion throughout this chapter has suggested that there is an increasing interest in teachers' collaboration. However, a gap exists between the theories in this area and research practice. The existing research appears to lack the voices of the teachers who are envisaged as the primary beneficiaries of collaboration. There is a scarcity of research that has analysed the nature of teachers' collaboration in their day-to-day work situation and the complex relationship between teacher collaboration, social structure, cultural norms and teachers' agency. Considering these, the current study seeks to answer the three research questions which are stated in Chapter 1 (Section 1.3).

This study argues that social theories, such as situated learning theory (Lave & Wenger, 1991) (for the nature of collaboration), theory of capital (Bourdieu, 2011b), and Affordance theory (Gibson, 1986) are useful for analysing teachers' perception, their day-to-day collaborative activities and how the perception and collaborative activities are influenced. The next chapter illustrates the theories and their relevance to this current study.

Chapter Four- Theoretical lenses

4.1 Introduction

The main aim of this research project was to explore the ways teachers in a primary school in Bangladesh understand collaboration, how they perform their day-to-day collaborative practice and the factors that influence the collaboration. More explicitly, it sought to understand how teachers perceive collaboration, what they do collaboratively with their colleagues, in what situation and with whom they tend to do so, and how collaborative practices are enabled and restricted. Three socio-cultural theories and related concepts were used as lenses to investigate the perception and nature of teachers' collaboration, and the factors that effect on collaboration. Situated learning theory (Lave & Wenger, 1991) and its central concept, the community of practice (CoP), were used to explain the relationships among the teachers and how that informs their collaboration. The idea of 'Habitus' (Bourdieu, 1990, 2005, 2011b) with its inbuilt concept, symbolic capital, and the theory of 'Affordance' (Gibson, 2014) helped to analyse teachers' perception of collaboration and their collaborative action with the concepts providing tools for analysing the interplay between human agency and social structure. The following sections illustrate the theories and concepts as well as explain the rationale for using them in this research.

4.2 Situated learning, community of practice

According to situated learning theory (Lave and Wenger, 1991), knowledge is situated in the context of a community. Members of the community gain knowledge and become masters from a position of a novice participant through social interaction with other members of the community (Ainscow & Howes 2001). This study acknowledged this theory and assumed that teachers learn in the context of school by interacting with colleagues and other members of the school community.

When the members of a community share a domain of common identity and interest, enjoy legitimacy for participation, and share responsibilities, experiences and resources for

achieving common goals, it becomes a community of practice (CoP) (Lave, 1991; Wenger & Wenger-Trayner, 2015). The idea of a community of practice stems from the sharing of ideas, experiences and practices to build new knowledge within the community. The members of a COP go through a process of debate, reflection, challenge and experiment that result in social learning (Schön, 2017). In this research, I considered the teachers³ in a school as the members of a community of practice and attempted to explore the nature of the community and the practices of its members.

The nature of a community of practice could be understood by analysing the space the members belong to, the agency among the members and the participation of the members in the decision-making. Wenger and Wenger-Trayner (2015) named these three aspects as *domain*, *community* and *practice* within the study context. According to Wenger (2011), these three characteristics are crucial for a CoP. First, the domain provides a sense of space for the members of the community to be engaged in a shared interest. Second, while the domain is a space, the community is the agency to make that space lively. Finally, the practices refer to the interactions the members of a CoP have among them. A space with its members is not in itself a CoP as it is the interaction among its members that is required to make it a CoP.

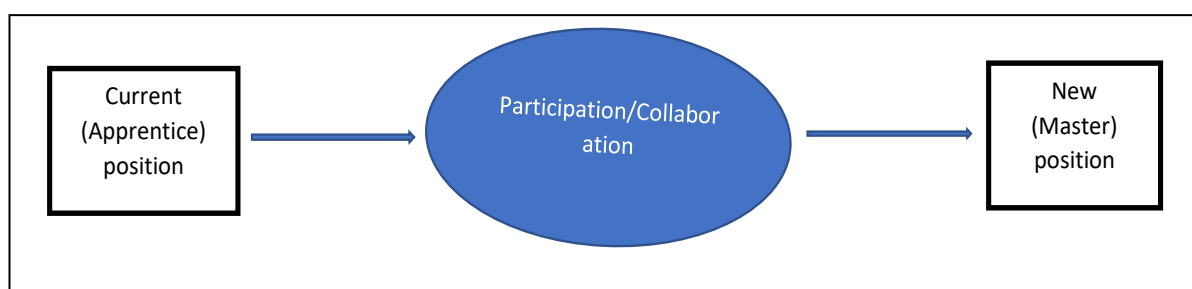
The teachers in a school were a good example of a CoP because they met all the three features of a CoP that were described in the previous paragraph. For instance in a Bangladeshi primary school, first, the expertise and commitments in teaching primary students in Bangladesh provided the teachers a space where they share common interest. Secondly, the school offers teachers a sense of community where they help each other and

³ In the school context other stakeholder such as students, parents and members of the managing committee may be considered as members of the Community of Practice. However, in my study, I consider only teachers as the members of such community because, in a context where the study is proposed, other stakeholders in a school such as parents, managing committee members have minimal capacity to discuss teaching. There is a debate whether they should be included when analysing teachers professional learning community nevertheless, due to word **constraint** this academic argument is avoided here

learn from each other. Finally, teachers in a school share experiences, stories, resources, and could respond to situations/challenges together. In this study, I tried to understand the three characteristics of the teachers' CoP within the school where I conducted my study. An understanding of these three characteristics was useful for comprehending the nature of the teachers' collaboration.

Moreover, when Lave and Wenger (1991) discussed the concept of 'community of practice', they pointed out that the position of a member in a community, his/her identity within it and the legitimacy s/he had for participation were important aspects for participation and learning. Analysing the position of the teachers, the identity they hold and the legitimate power for participation they possess helped to understand the way they interact with colleagues.

Lave and Wenger argued that members in a community of practice possess legitimacy for participating within the community and acquire knowledge and skills by interacting with each other. Through the acquisition of knowledge, they move from peripheral to central participation within the community as they become experts in the area of knowledge. In a school, a novice teacher learns by interacting with his/her senior colleagues and gradually becomes an expert within the teachers' community in the school. (Not only a novice teacher, but also a veteran teacher might learn by interacting within the community. For instance, a younger teacher might have better Information and Communication Technology skills than a more experienced teacher. In that case, the experienced teacher would learn from the young teacher.)



To explain the notion of Legitimate Peripheral Participation, a master-apprentice relationship is often referred to. According to this concept, an apprentice joins a community of practice and participates from the periphery (Lave & Wenger, 1991). The newcomer is mainly an observer. Through observation and peripheral interactions with the members of the community the apprentice gathers experience, confidence and understands the culture of the community proceeding to fuller participation and eventually becoming a master. It is a continuous journey from a peripheral to a central position in a community of practice. In real life, there is no end of such a journey.

Lave and Wenger (1991), in their book *Situated Learning: Legitimate Peripheral Participation*, considered an ‘apprenticeship’ as the legitimacy for participation within a community such as in tailoring, midwifery, ship navigating, and butchering. An apprenticeship position in each community offered a newcomer the legitimacy for

Figure 2: Learning through peripheral participation

participation that resulted in a gradual acquisition of knowledge and skills. In this current study, the teachers in the school were already members of a community and had several years of experience. Thus, they had legitimacy (maybe of different degrees) for participation. However, the extent of the legitimacy of a teacher for collaborating with colleagues might be contingent on his/her social status perceived by the teacher him/herself and by others. Their previous experience and the social structure of the school might also contribute to their legitimacy. Hillier & Rooksby (2005) argued that the position of an apprentice or a member of a community was determined by the structure of the community and their dispositions. Through interaction with other members of the community, an individual understands the rules of the community and moves towards the centre of the community. The more central the position is, the more power it offered to the member and thus the member could be in a position to influence the structure of the community.

However, while the legitimate peripheral position on the one hand empowers a learner (teachers in the case of this study) to participate, on the other hand, it could also be disempowering (Contu & Willmott, 2003; Lave & Wenger, 1991).

As a place in which one moves toward more –intensive participation, peripherality is an empowering position. As a place in which one is kept from participating more fully.... It is a disempowering position (Lave and Wenger 1991 P. 36).

Peripheral legitimacy allows a member to move towards more intensive and powerful participation. Yet, if a member does not quite know how to engage with others or fails to understand the intricacies of the COP, s/he became a disempowered member. Such a position could even be identified as a periphery of the community (Fraga-Cañadas, 2011) that might pull the member toward the outside of a CoP. For instance, Fraga-Cañadas (2011) provided an example of a non-native teacher with lower language proficiency in a Teaching Foreign Language (TFL) context. She argued that the teacher might never dare to use the target language among colleagues, and his or her feelings of illegitimacy could bring about the kind of low self-portrayal of language competence that would further hinder his or her engagement in a CoP.

Similarly, in a school context, in general, a teacher's peripherality refers to the position characterised by his or her symbolic capital which may include knowledge, skills and respect in the society. It is not necessary that a novice teacher be always in the periphery of the community because s/he may have better symbolic capital such as, wider network or expertise in a specific area (e.g. technology). Such symbolic capital may pull the teacher to the centre of the community faster than other members. In such a situation, a senior teacher might learn from him or her. However, the new teacher needs to know the game of placing him or herself in a position in the community so that senior teachers know that s/he has that expertise and they feel comfortable to interact with him or her.

Especially, in this current study all but one of the teachers were qualified and had at least seven years of experience and even the one unqualified teacher had three years of experience. Thus, they could not be considered as a peripheral member of the community considering their experience. Moreover, their ‘legitimacy’ was primarily driven by their appointment as teachers at the school by the government (they are recognised and appointed as teachers by the authorities) as well as their qualifications, training and experience. Yet the nature of their participation within the community might depend on the domain they belonged to, the structure of the community and the norms within it and the nature of practices within the community. In a school, teachers might belong to several subdomains and those domains might determine the nature of their participation. The structure and norms of the community to which the teachers belong in a school might influence their participation. The nature of practice (regular activities within a school) also might shape teachers’ participation in different activities. Hence, this study looked into the nature of the domains teachers belonged to, the structure and norms of the community, and the nature of the regular practice within the school to understand the way teachers collaborate in and outside of the school in their day-to-day life. The situated learning theory and the concept of ‘community of practice’ provided a framework for analysing the nature of collaboration and the factors that influence the collaborative activities. The table below indicates how the concepts of situated learning theory inform the current study. The first column in this table includes the theoretical aspects, the second column explains how these inform this study and the third one provides the techniques for investigating each aspect which are further explained in the next chapter (Methodology).

Table 4: Concepts of situated learning theory and their relationship with the current study

IDEA FROM SITUATED	LINK TO RESEARCH QUESTIONS	TECHNIQUES FOR INVESTIGATION
--------------------	----------------------------	------------------------------

LEARNING THEORY		
THE DOMAIN	What are the shared interests and commitments teachers possess and how those inform teachers' collaboration? What are the relationships between different domains within the teachers' CoP? (nature of collaboration.)	Observing teachers' day-to-day practice, and interviewing them.
THE COMMUNITY	How the agency of the members of the community and the norms within it shape teachers' collaboration. (Factors affecting collaboration)	Observing teachers' day-to-day practice, listening to their staffroom conversations and interviewing them
THE PRACTICE	What is the nature of teachers' engagements (sharing ideas, experience and resources) jointly with their colleagues? within the CoP? What is the relationship between them? (Nature of collaboration)	Observing teachers' day-to-day practice, listening to their staffroom conversations and interviewing them

What made a teacher legitimate and empowered him/her to participate in the community of practice was a crucial question. The theory of 'Habitus' and the notion of 'Symbolic Capital' (Bourdieu, 1990, 2011a, 2011b) within this theory were useful lenses for looking into what made people legitimate and empowered in a social field.

4.3 Habitus, social capital, power

Habitus, a concept, popularised by the French philosopher and sociologist Pierre Bourdieu (Bourdieu, 2005), explains actions of a social agent e.g. a person or an organisation.

Habitus is the social agent's disposition which was durable, and at the same time transposable. In a society, a person's habitus is the combination of the amount and types of symbolic capital that the individual has. Bourdieu (2011) identified three types of capitals

and collectively those were called symbolic capital. First, economic capital is formed of wealth. Second, social capital is defined as the resources and power one could gain through his or her social network. Third, cultural capital is formed of more durable and intangible properties like knowledge, skills, and intellectual properties (Bourdieu 2011; Hillier and Rooksby 2005).

An analysis of the notion of CoP indicate that the symbolic capitals of a member of a CoP allowed her/him to participate with other members of society (i.e. community of practice). For instance, we might consider the teachers of a school as members of a CoP. A teacher who was in a better economic position than other colleagues might have good communication with other stakeholders of the school such as local authority, parents etc., and might possess better knowledge and skills of teaching, putting him/her in a more advantageous position to participate in discussions and decision-making processes in the school than other colleagues. Thus, it seems likely that the higher the cumulative amount of capital a person has, the better opportunity s/he gets for participation.

However, the capital was contingent on the 'social field'. Society is made up of multi-dimensional space and it has a number of sub-spaces or fields (Maton 2014). Examples of the spaces include institutions, social groups, workplace and so on. When an individual enters a social field such as a school, the combination of his/her capitals becomes symbolic capital. For instance, when a teacher joins a school, his/her social status, the network s/he had, the economic resources s/he possesses and the rule about the field s/he knew become his symbolic capital. According to Bourdieu's theory, this symbolic capital and the social structure of the school the individual enters determine the interaction of the individual with other members of the school (i.e. CoP). The attributes that are valued and confer high social capital in education (e.g. expertise in teaching) might not confer the same social capital in another field (e.g. the banking sector). Here, along with other capital, the

(unwritten) rules of the society (i.e. school) play an important role in the probable course of action of the individual (i.e. teacher).

Bourdieu called the unwritten rules of a community within a field a ‘Doxa’ (Bourdieu, 1990, 2005; Hillier & Rooksby, 2005). The Doxa is the combination of the rules of a social field and space according to which the members of the space evaluate the individual and consider his/her legitimate position in that space. In a school (which is a social field) a teacher moves towards a newer position within the community through the process of changing habitus by knowing new Doxa through interacting with more experienced colleagues who have moved closer to the master status than the apprentice.

In this study, my aim was to understand the social structure of the school, the habitus and social capital of the teachers and how those influence the interaction among the teachers. Precisely, the theory of habitus helped to analyse the processes and underlying reasons for any collaboration that may be found in the school.

Table 5: Concepts of habitus and their relationship with the current study

IDEAS FROM THE THEORY OF HABITUS	LINK TO RESEARCH QUESTIONS	TECHNIQUES FOR INVESTIGATION
CAPITAL	What influences a person to interact with others in the school and in which way? (Perception of collaboration and factors affecting collaboration)	Interview and observation of teachers’ day-to-day practice.
DOXA	How the rules in the school context make teachers collaborative? (Factors affecting collaboration)	Staffroom conversations and interview

THE FIELD	How do the social structures of the school and cultural norms within it promote or hinder teachers' collaboration? (Factors affecting collaboration)	Observing teachers' day-to-day practice, listening to their staffroom conversations and interviewing them
-----------	--	---

4.4 Affordance

Affordance is the possibility for action that an object, space or another individual offers to individuals (Gibson, 2014). What enables an individual to act upon an event/object/person, is the affordance of the event/object/person. The affordance of an event/object/person is relative. The perception of the individual who saw the affordance is an important perspective because perceptions guide human actions. Teachers may use collaboration if they possess the perception that this is useful for their professional development, otherwise collective actions could serve other purposes. For instance, as discussed in the literature review section, many teachers in Bangladesh have no experience of collaborative learning during their own education or teacher training (Thornton 2006), and therefore might not see the affordances of collaboration to help them improve their knowledge or practice.

Gibson exemplified affordance with the physical and visual properties of a space (Gibson, 2014). If the space is horizontal, flat, extended and rigid enough for an individual to stand on it, stand-on-ability, walk-ability and run-over-ability are the affordances of the space. The space may not have the same affordance for other individuals as it might not be extended or rigid enough to offer those affordances to them (for example, if the other person was too big to be able to stand on the space). So, the affordance of an object, space or individual is unique as it is perceived very differently by different individuals. The shape and size of an object might be measurable with scale and standard units, but its affordance is not. A similar explanation applies for a person's affordance. A person's skill

or knowledge could be measured but his/her affordance to another person is not measurable and it varies from person to person.

This study investigated how a teacher perceives the affordances of collaboration with their colleagues' (in other words, what they think such collaboration might enable them to do that they couldn't do without the collaboration), and how those perceptions affect their collaborative work. The assumption was that an experienced teacher might interact with a novice colleague to learn new things if s/he felt that the junior teacher had a capacity to explain these new things. For instance, a novice teacher might have better expertise in modern technology (e.g. using a multimedia projector or a smartboard) than a more experienced teacher and thus the experienced teacher might perceive in them the affordance to learn something about new technology. This study assumed that the experienced teacher may collaborate with the novice teacher in order to learn how to operate the school's multimedia class technology. Thus, a teacher could interact with a colleague regardless of his/her experience. If a teacher felt that another teacher had potential for learning or getting help, s/he could collaborate with that teacher. Thus, power status, the structure of a society where an individual lives, expertise and other factors that contribute to the 'affordance' might add value to a teacher for his or her legitimacy for participation. The concept of affordance was useful for this study because it allowed me to analyse how the power status of a colleague and the structure of the society influenced a teacher's decision for collaborating with someone in any specific time.

Table 6: Theory of affordance and its relationship with the current study

IDEAS FROM THE THEORY OF HABITUS	LINK TO RESEARCH QUESTIONS	TECHNIQUES FOR INVESTIGATION
----------------------------------	----------------------------	------------------------------

AFFORDANCE	<p>How teachers perceive the affordance of collaboration with their colleagues? (Teachers' perception of collaboration)</p> <p>What characteristics of a colleague encourage a teacher to work collaboratively with him/her? (Teachers' perception of collaboration)</p>	<p>Observing teachers' day-to-day practice, listening to their staffroom conversations and interviewing them</p>
------------	--	--

4.5 Chapter Summary

The theories described above provided the analytical tools to understand teachers' perceptions of collaboration and the nature of their collaborative activities. Situated learning theory and the notion of Community of Practice within this theory provided a framework to analyse the nature of teachers' collaboration in their community. It helped to see how the nature of a CoP shaped the nature of collaboration and teachers' engagements in the CoP. The concept of habitus emphasised the sense of the 'space' where the person was involved. It called for an understanding of the social structure in which the community was located to understand the reasons for the nature of any collaboration. It also suggested that the habitus of the teachers needed to be considered for the purpose of analysing their collaborative behaviour. Teachers' symbolic capital needed to be identified to explain their behaviour in the community. The theory of affordance called for an investigation of teachers' agency in the form of their perceptions of collaboration to explain their collaborative actions. It helped to explain the ways/extent to which teachers saw possibilities for action (affordances) through collaboration with their colleagues, that might enable them to do things that they couldn't do (as well or as easily) on their own.

This chapter depicted how these theories informed this current research. While doing this, it also offered an insight into the techniques to be adopted to investigate each aspect. The next chapter provides a detailed description and explanation of the methodology adopted in this study.

Chapter Five – Methodology

5.1 Introduction

This chapter gives a detailed account of the research philosophy and methods adopted in this study and the reasons for choosing them. Section 5.2 illustrates the ontological and epistemological premises for this study. This section also explains my role as a researcher in terms of maintaining a positionality that helped me to obtain the data needed for this research.

Section 5.3 describes the methods and tools for data collection and how these informed the ontological and epistemological positions. It also discusses the processes of organising and cleaning data. The following section, 5.4, details the approach to analysing the data, how the analysis informed the Critical Realist ontological position adopted in this research, along with a set-by-step practical analysis procedure. Section 5.5 outlines the ethical aspects of this study, including the voluntary recruitment process of the school and the teachers, and how the privacy of the participants was maintained.

5.2 Ontological and Epistemological Standpoints

The ontology of research is concerned with what constitutes reality and epistemology as a way of creating knowledge (Scotland, 2012). While ontological assumptions are involved with our perception of the world, epistemology represents the process of presenting the knowledge, taking the perceived world into account.

This study adopted a Critical Realist (CR) ontological position (Tikly, 2015) and ethnography as its epistemological standpoint (Green, Skukauskaite, & Baker, 2012). In social research, Critical Realist ontology calls for an understanding of human agency and social structure as well as the interplay between the two for answering research questions. CR philosophy served the purpose of this study best because to understand the nature of

teachers' collaboration in a school, I needed to understand teacher agency and the social structures of the school and the interaction between those. This philosophical standpoint also aligned with the concepts of habitus and symbolic capital which were described in the previous chapter. Whilst the symbolic capital of a teacher helped to explain the teacher's agency, the concept of habitus allowed a discussion of the perceived social structure of teachers within the school. The concept of CoP also helped to analyse the social structure of the school where this study was carried out.

The later part of this section describes ethnography as the epistemological position for this study. Ethnography enables a researcher to get a deeper understanding of human behaviour in the context and the nature of society by participating in people's daily lives for an extended period of time (Hammersley & Atkinson, 2007). (In such an approach, a crucial question is how to keep the participant and researcher personas separate. A detailed discussion on this aspect is provided in Section 5.2.4 in this chapter.) In this study, to understand teachers' collaborative behaviour and its context, such an approach was an appropriate one. The following subsections discuss the ontological and epistemological perspectives adopted along with explanations of how those positions helped to answer the research questions.

5.2.1 Ontological standpoint: Critical Realism

A Critical Realist (CR) standpoint bridges positivist and interpretivist philosophies and takes a middle way, arguing that any social phenomenon needs to be analysed taking the agency-structure relationship into account (Pawson, 2013; Scott, 2005; Tikly, 2015).

According to CR philosophy, social structure and human agency possess distinct power in their own right. Social structure includes the features (e.g. norms, culture) of the society while human agency possesses attributes such as self-consciousness, reflexivity, intentionality and emotionality (Tikly, 2015). While the powers of social structures enable or restrict human actions, human agency enables them to formulate, pursue interests and

learn. To explain a social phenomenon like teachers' collaboration in a school, I needed to take the social structure of the school and teachers' agency into account.

While the proponents of positivism argue that reality could be claimed only when it is observable, an interpretivist standpoint suggests that there was no single reality and this is only constructed through our experiences (Robson, 2002). Critical realism, acknowledging both standpoints, assumes that there is an underlying reality to all things. To investigate that reality, a Critical Realist paradigm focuses on both the characteristics of the individual and the environment, as well as on the relationship between the two. The social structure, the agency of the actors in the structure and the underlying mechanism of interplay between the two are crucial to reveal the truth (Bhasker, 2013; Scott, 2005).

This concept aligned with the theoretical framework described in the previous chapter which called for an in-depth investigation into the social structure and teachers' agency. For instance, within a CoP, the position of a member is determined by its social structure and the disposition of other members. To understand how a member in a CoP behaves, it is important to understand the social structure and the agency of the members of that community. Similarly, how the social and cultural capital (knowledge, skills and respect in the society) of an individual is perceived by the other individuals within society depends on its social and cultural norms. Without an understanding of the structure of the society, the dispositions of its members and the 'capital' of an individual, it is difficult to understand the social interaction between the individuals. In the same way, affordance, which accounts for the possibilities for action that an object, a space or an individual offers to another individual, is relative and depends on the nature of the environment and the person/object. Hence, to understand the nature of teachers' collaboration, the social structure of the school and its surroundings, the agency of the teachers' and their community, and the interplay between the structure and teachers' agency a robust investigation was needed.

For such an investigation within a CR paradigm, three levels of a reality must be considered, namely: the empirical level, the actual level and the real level (Bhaskar, 2013). The empirical level of a reality may reveal a pattern of cause and effect relationships. For instance, in the context of this study, the observable pattern of teacher's collaboration (such as, working jointly in a challenging situation (Cohen et al., 1979)) was an empirical level reality. Tenets of positivist philosophy would consider this as a reality. However, the pattern might not be similar in different situations (Tao, 2013) since it is a social phenomenon influenced by a complex agency-structure relationship which cannot be measured in a similar way as in a laboratory environment. For instance, Little and Bird (1984) found that teachers' joint actions depended on the teachers' perceptions of their interdependence (agency) and the presence of opportunities for joint action (situation). In the absence of opportunities for joint action, teachers might not have collaborated even in a challenging situation. The reasons for such deviation of results might lie in the actual layer of reality.

The actual level is where the events occur in the world (Tikly, 2015). This level might be beyond our perception/knowledge. That is, events occur whether or not we experience them and those could be different from what is observed at the empirical level (Danermark, Ekstrom, & Jakobsen, 2005). The majority of studies in the area of teacher collaboration have examined whether teachers were performing a set of activities such as observing each other's classes, providing feedback, sharing experiences and resources etc. However, collaboration among teachers might exist beyond that. Conversely, collaboration might not be reflected in a mechanical way of observing lessons and providing feedback. For example, a teacher might observe a colleague's lesson as routine work without the aim of developing their practice through reflective discussions.

Whether and to what extent teachers collaborate is determined by the causal mechanism between their agency and the social structure. This suggests that the nature of collaboration

depends on teachers' perception (understanding of the meaning and importance) of collaboration and what the environment allows them to perform. The layer where such a causal relationship between agency and structure happens is the 'real' level of a reality (Bhaskar, 2013; Danermark et al., 2005; Fletcher, 2017; Tao, 2013; Tikly, 2015). Bhasker (2013) argues that real structures endure and operate independently of our knowledge, experience and the conditions which would allow us to access them. The interaction between social structure and human agency results in events that may have a certain pattern and be constructed in a certain way, depending on the human experience.

The three levels of a reality could be compared with an iceberg (Fletcher, 2017) of which the visible part is the empirical level which is a very small proportion of the total volume. Whereas, the part under the water is invisible but contains most of the weight. Similarly, empirical evidence from a study may only provide an apparent scenario of the reality but a critical scrutiny of the surrounding environment and the relationship between the environment and the empirical data may reveal the real nature of the problem.

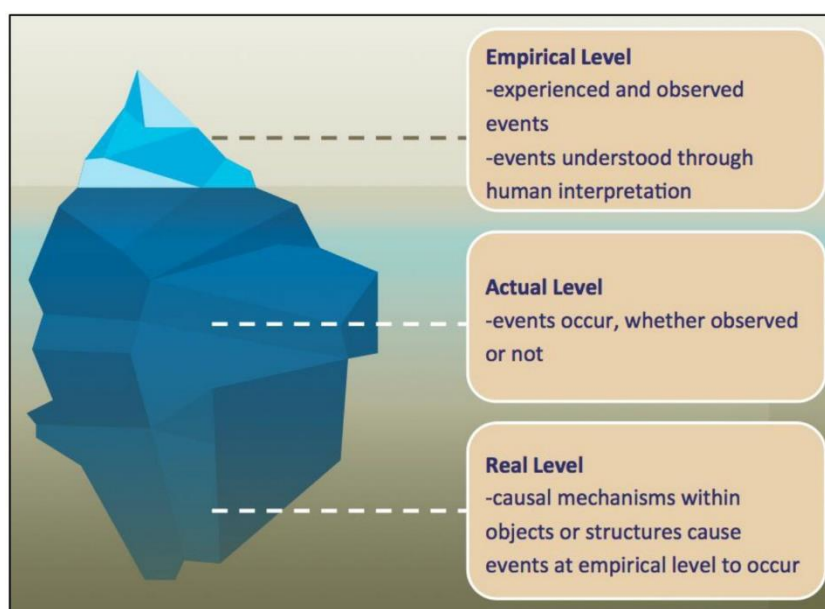


Figure 3: An iceberg model of Critical Realism adapted from Fletcher (2017)

In the context of the current study, teachers' and researchers' experience of teacher collaboration is the empirical level of reality. For instance, teachers may say that they

observe each other's class and discuss the observation together afterward, and the researcher may see such interactions. However, it may be impossible to see whether those are examples of routine formalities or of spontaneous collaboration. This is the actual level of collaboration. Whether the peer observation and post-observation discussions arise from shared goals or spontaneous endeavour may depend on local educational regulations, workplace norms, teachers' agency and other factors. These factors and the interplay between them are the 'real' level of reality. To understand these matters, social structure and human agency need to be analysed.

In this study, I observed the day-to-day activities of the teachers in a school to collect empirical data in order to understand teachers' collaboration. I also interviewed the teachers to understand the factors that enable them to carry out collaborative works or restrict them. The analysis provided an understanding of what teachers did together with their colleagues in a school and what enabled or hindered their collaboration. Nevertheless, the analysis of these data may only give a superficial view of teachers' collaboration. What shaped the nature and the factors that affected collaboration were the questions that could not be answered by such data. The socio-economic background of an individual teacher, their educational and professional experiences, the school culture, the overall education system and the general political and historical understanding were necessary to comprehend the agency of the teachers and the structure of the society they live in.

The theories explained in the previous chapter inform and are aligned with the philosophical stance of Critical Realism. The theories helped to explain the social structures and teachers' agency that shape collaboration among teachers. While the concept of CoP informs the social structure and explains the nature of collaboration (RQ2), the notion of Symbolic Capital within the theory of Habitus helped to analyse teachers' behaviour within the community and explains the factors that influence their behaviour (RQ3). The theory of Affordance provides a framework to explain teachers' agency which

is revealed in the form of their perception (RQ1). In addition to that, an analysis of the wider culture of rural Bangladesh helped to expand the analysis of the factors (RQ3) that influence the nature of collaboration within the CoP of the teachers. The culture is explained by using a framework provided by Hofstede (2009) which, for the sake of coherence of the discussion, is explained in Chapter 8. The relationship of the theories and the ontological standpoint can be summarised by the diagram below.

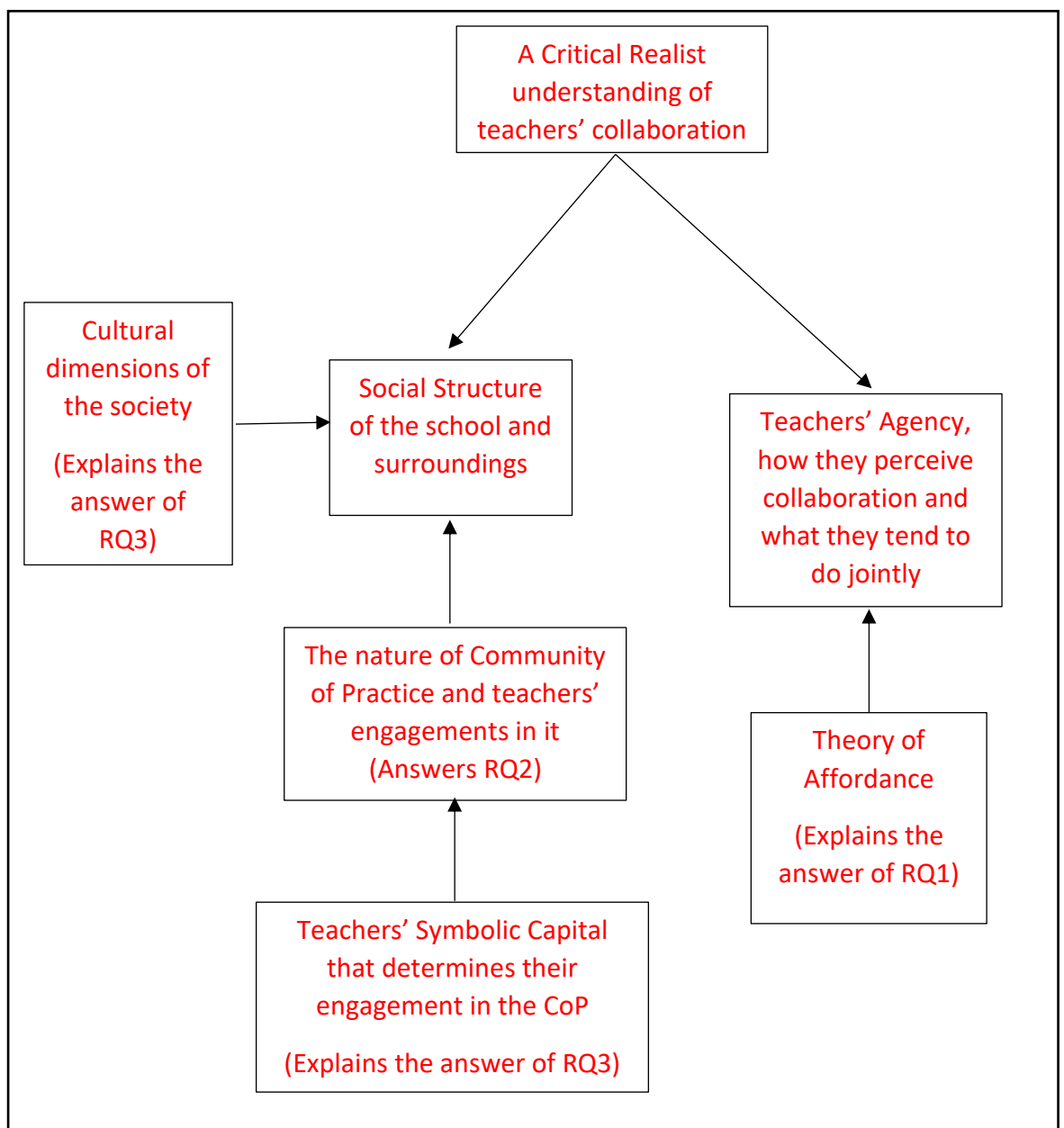


Figure 4: Relationship between the theories and research questions

5.2.2 Epistemological aspect: Ethnography

To collect its empirical evidence and to acquire an in-depth understanding of the social structure and its underlying mechanism, my study took an ethnographic approach to its epistemology which is the science and art of cultural description (Frake, 1983). The main goal of ethnography is to understand the meanings, including subjective meanings, of behavioural patterns within a particular community. ‘Ethnographers believe that human behaviour cannot be understood without incorporating into the research the subjective perceptions and belief systems of those involved in the research’ (Nunan 1992a, p. 52). An ethnographic approach strongly emphasises the importance of exploring the nature of a particular social phenomenon, such as collaboration, rather than setting out and testing a hypothesis (Aktinson & Hammersley, 1998). It involves collecting in-depth data by observing and participating in a group's activities and interviewing participants about what was observed (Hammersley & Atkinson, 2007). Hence, for a deeper understanding of a context and its underlying mechanism, ethnography was a key approach.

However, ethnography as an epistemology of research suffers from several dilemmas. According to Hammersley (2006), the first of these issues is determining the context which is appropriate to study. That is, whether researchers should locate themselves into the wider society to understand the problem holistically or whether they should place themselves within the micro-context to focus on the people being studied. In the modern era, with the increasing use of audio and video technology, researchers tend to focus on micro context. For instance, researchers may consider only the collaborative activities of teachers to analyse the nature of their collaboration. However, I argue that without studying the surroundings, understanding the activities of the people within the surrounding would be partial. Micro ethnography is already included in macro ethnography which is the holistic research of the context. In my study, I focused on the people (teachers) I studied to understand their collaboration by registering their day-to-day

activities through observing their day-to-day practices and audio-recording their conversations. I also interviewed the teachers to understand the meaning of their actions. In addition to that, I documented the situation and the environment in detail in my field notes in order to explain the activities in context when I returned from the field.

A second issue with ethnography is, whether a researcher should place him/herself within the context or study the context from a distance by not interrupting the situation. These may imply that the researcher could fall into one of two categories; nonetheless, in literature, these two poles are also discussed as a continuous linear matter (Chavez 2008), meaning that a researcher could position him/herself in any place in-between the two positions.

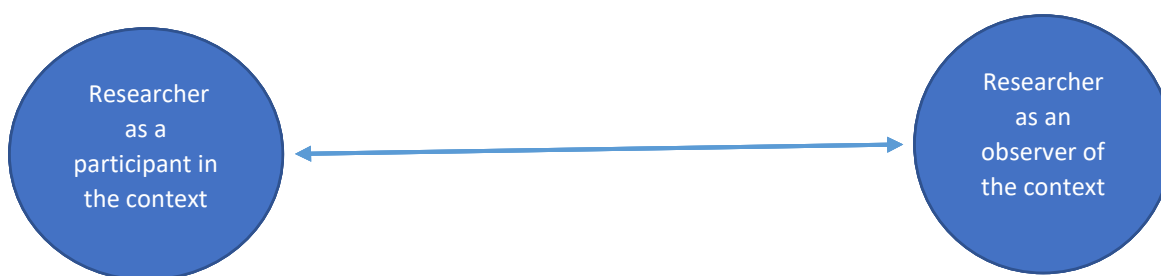


Figure 5: Researcher's positionality (Adapted from Chavez, 2008)

It has also been argued that we cannot study a social world without being a part of it (Aktinson and Hammersley 1998) and hence, the participation of the researcher in the context is often encouraged in ethnographic research. Yet, whether a researcher should participate in the day-to-day activities of the people who are being researched is another crucial question. When studying teachers' collaboration in a rural school in Bangladesh, it was necessary to understand the teachers' agency and the social structure they live in. For this, being in the context was needed. So, I was physically (not virtually) present in the context. Nevertheless, it is acknowledged that my participation in their activities may have influenced the way they collaborated. Even merely being present in the context can alter the practice of the teachers. Hence, I tried not to participate in their activities (a detailed account of my presence in the field is described in the next section). I spent an extensive

amount of time in the school to build trust among the teachers to avoid the influence of my presence to any significant extent.

The third dilemma that ethnography often encountered is how to evaluate ethnographic descriptions. Frake (1983) suggested that systematic documentation is the key to convince such critiques. I audio recorded the staffroom conversations of the teachers, videotaped some of their classroom practices and took detailed descriptions of the situation in the school every day to allow me to explain any event in context. The process of audio recording is described in the methods of data collection section.

A fourth dilemma often posed of ethnography is over what to include while collecting data (Hammersley, 2006). Data gathering is always a series of selection decisions, starting with the design of instruments. Including a rich and detailed description of the time a researcher has been in the field is key, as an event may take place as a consequence of the previous event and any information may help to understand the structure-agency relationship. Thus, I tried to take as detailed notes as possible during my fieldwork. I used an opportunistic or emergent sampling strategy (Suri, 2011) that allowed me to make decisions about what to record and take advantage of events, as they unfolded.

Finally, the question of generalisability is often a cause of tension not only between the different epistemological propositions but also among ontological standpoints. The question is, whether ethnography should seek generalisable findings or not. Another level of this debate is whether any research can claim complete generalisable findings. Simons (1996) answered the question in the following way. Taking in-depth case study into account, he argued that the strength of such in-depth research is its uniqueness and its capacity for understanding complexity in particular contexts. Therefore, according to him, such research yields both unique and universal understanding.

It has been argued that multi-site ethnographic studies could increase the possibility of generalisation. However, in this study the resources were not available to enable extensive fieldwork/relationship building in multiple schools. Moreover, multi-site qualitative studies often result in superficial understandings as the researcher may pay fewer visits when these involve collecting data from several locations (Simons, 1996).

In this research, I do not claim generalisability of the findings, rather I aim to provide a credible and authentic scenario of teachers' collaboration in a context that has not been extensively studied i.e. rural Bangladesh. Nonetheless, understanding the uniqueness of this particular instance of teacher collaboration, might also shed light on truths about this human behaviour and context that reflects in schools and teachers lives in many places. By being in the context for an extended period of time, creating a good rapport and trustworthiness with the participants, interviewing them repeatedly about any observation I felt I did not sufficiently understand and questioning myself about my understanding (Foley, 2002), I tried to establish the authenticity and credibility of the findings (Robson, 2012). I argued that, for an in-depth understanding of a group of people, the social structure they are interacting with and the interplay between the two, a researcher should go into the depths of the context rather than spreading the geographical area of the research. I collected data from only one school, and this is the main argument for making that choice. Other reasons are described in the following section.

5.2.3 Scope of data collection: Why a single school?

In an earlier stage of my research, I decided to conduct a multi-site data collection project and chose three schools in one district of Bangladesh. The selection was mostly purposive and convenient. A purposive selection involves a deliberate choice of a participant due to the qualities the participant possesses, whereas a convenient selection considers whether participants meet certain practical criteria, such as willingness, easy accessibility, geographical proximity, availability at a given time (Etikan, Musa, & Alkassim, 2016). To

answer the research questions of that study, I needed schools that have sufficient numbers of teachers to enable collaboration and a headteacher who would allow me to access the school for an extended amount of time.

Primarily, the following criteria were used for selecting schools to understand teacher collaboration in different contexts.

1. One from an urban area
2. One from a rural area
3. One shift school (some schools run more than one shifts each day to manage high numbers of students. The same teachers, usually, conduct classes in all shifts.)
4. One school within the Teacher Support Network (this is a government initiative to promote teacher collaboration and peer support within schools).

By following these criteria, and assistance from a government official who was an instructor of a primary teacher training institute who visits schools frequently, the three schools were selected. A preliminary field visit was made to the schools, and it was recognised that a deeper understanding of the contexts with a limited amount of time and resource of a single researcher would be difficult to achieve and there was a risk that resulting findings may be superficial. In addition to that, to build trust and gain access to the day-to-day regular activities of the teachers, an extended stay was essential. However, it was difficult to afford an extended time in three different schools within the timescale and financial constraints of the study and the researcher's other commitments.

Two of the schools also had an insufficient number of teachers and very limited opportunities for collaborative work between them as they were extremely overloaded with teaching. All these observations led me to change my research design and select a single school for the study. This change helped me to get prolonged exposure to build

the relationships and trust necessary to gain in-depth understanding of the community. The way I developed the positionality and the way it helped me to understand the context is illustrated in the next section. For the current study, this specific school was chosen because it had twelve teachers, and this number is very high for a Bangladeshi primary school. I assumed that this number of teachers may enable collaboration in school and the preliminary fieldwork proved me right. The headteacher in this school welcomed my study and the school was conveniently located for commuting from the capital city where I stayed during the fieldwork.

5.2.4 My positionality in the field as an ethnographer

Shorafot Hossain (M): Let's think that we are in a family, we have a very simple lunch like rice with mash potato and lentils. We will manage with that. But if you- a guest- come, we will try to arrange something special, at least scrambled egg... or some sort of fish.... Or something special... that's how we will treat you... our lessons are similar... we teach in our own way. But if there someone comes to observe, naturally we...

Benu Akter (F): Fry an egg... (Laughter)

Sonu Shaha (F): We fill our stomach anyway...

Shorafot Hossain(M): But you just become a part of our family, we share the typical lunch with you, so you can see the real lesson we conduct... but if you come all of a sudden (like a government inspector)... You won't see the regular practice...

Me: I came to taste the mash potato and lentils (laugh)

Above was a conversation among three participants of this study and me. It may provide a glimpse of my positionality in the field.

An in-depth ethnographical study may result in a researcher influencing the context. Especially, when collaboration is the focus, the engagement of the researcher in the school context (i.e. researcher placed as a community teacher in the school) might influence teachers' collaboration which may interrupt the situation. The researcher's sustained focus on a particular area may cause changes in the participants' behaviour and attitudes in that area; for example, in this instance, towards collaboration with peers. Making a rapport and building trust are ways often suggested to minimise the interruption due to the presence of a researcher in the research context (Bonner & Tolhurst, 2002). However, when a researcher becomes too close to the participants, s/he may be affected by bias. Thus, a balance between the engagement of the researcher in the context and keeping a distance to obtain rich data was needed. During the preliminary field visit, I placed myself inside the school but maintained necessary cautions so that my presence only minimally influenced the situation. This section illustrates how I positioned myself in the context and how that helped me to collect data with minimal interruption to the situation. The section also tells the experience I had as a novice researcher in different positions within the same context.

As an ethnographer in this research, my aim was to study people in their day-to-day life and collect data from a range of sources, both formally and informally (Hammersley & Atkinson, 2007). With an ethnographic approach, a researcher may place him/herself within the research context and either take part in the day-to-day activities of the context or observe from a distance to maintain a degree of objectivity (Chavez, 2008). In the research setting, the researcher could be familiar with the context from previous experience and the participant may also consider him/her as part of the community being researched.

Conversely, the researcher and the observer could be strangers to each other. Between the two poles there might be an enormous range of situations (Chavez, 2008); for instance, researcher and the observer may know each other personally from previous experience, they may not know each other but be familiar with their practices and so on. In any case,

the positionality of the researcher has implications for the data s/he gathers from the research context (Vidich, 1955).

When researchers are the part of a research context as an insider, they enjoy several advantages as well as suffering from many difficulties (Bonner & Tolhurst, 2002; Chavez, 2008). The advantages include a practical understanding of the context, enabling them to collect data without interrupting the situation, saving the need to spend time creating rapport with the participants, allowing the creation of theory from unrecognised perspectives and requiring less time for data collection (Bonner & Tolhurst, 2002). Insider researchers already understand the context they are researching because they are parts of the community. The researchers need little time to clarify their position and to build trust with the subjects because they are already known to them. The researchers know the usual practice of the community and they can easily theorise the events. Furthermore, the researchers know what data is available to whom and where they can collect it without spending the additional time that a stranger would require to identify the sources of information.

On the other hand, insider researchers might miss tiny but important events within the context because they are *too* familiar to them. This is analogous to someone hardly feeling the presence of the air around them although they are always within that air. As researchers are very familiar with the context being studied, their role as researchers may easily be forgotten by themselves as well as by participants. Alternatively, the researcher may face a conflict between their roles as researcher and as a member of the community. Bias with regard to the interpretation and findings is one of the major criticisms an insider researcher may encounter. Since the researcher has a preconception about the context, her/his interpretation can be easily influenced and restricted by that.

Similarly, outsider researchers may also experience the benefits and shortcomings of the stranger positionality (Aktinson & Hammersley, 1998; Bonner & Tolhurst, 2002). In this

case, as an outsider, the researchers may obtain access to sensitive information for their short-stay status because members of the community do not see the researcher as a threat to them (Bonner & Tolhurst, 2002). The outsider researcher is in a better position to look into the situation as an objective observer and can see the interplay between the social structure and human agency which is difficult for a researcher who is closely attached to the community. In contrast, many of the events might not be divulged or those revealed may not make sense to the outsider researcher (Zinn, 1979). Furthermore, researchers need to invest extensive time to build trust in the people being studied as well as to understand the culture of the society.

In scholarly writing, positionality is often seen as a bipolar phenomenon with at one end the researcher as a complete outsider and on the other end the researcher as a complete insider. Yet, there can be numerous positionalities of a researcher in between these poles. This is a consideration from the researcher's perspective. The participants' perspective is, however, largely untold. When we consider the participants' perspective to understand a researcher's positionality, it becomes a quadripolar concept. The participants' perspective becomes important in this study, and the following discussion is about how the participants' perspective is important to understand positionality.

The advantages and disadvantages of both insider and outsider positionality are generic. When collaboration is the concern of an ethnographic study the insider/outsider duality takes an important dimension. To understand the process and result of collaborative actions of participants, the researcher needs to observe the events very closely. However, the close observation may influence the process, content and result of collaboration. This is specially the case in a context where a PhD researcher, who is based in a country in the global north, is seen as a person of higher social status by the participants. In such a case, the effect becomes higher. As a researcher, I had to take extra precautions to minimise the influence of my presence in the context. These precautions included allowing time for building trust

and for becoming a part of the day-to-day life of the teachers. At the same time, I had to maintain my researcher identity. I followed several strategies for that, which are described later in this section. I experienced my positionality differently in different situations and to different persons in the same school during my preliminary field visit. However, the relationship that had developed between the teachers and myself during the early field visit helped me to collect authentic data afterwards.

In my experience, positionality can change in different situations and in front of different people. I found that my positionality was constructed not only by myself but also by the people I was studying. For instance, during the early days of my primary field visit, I was confident that I knew the school context well enough (as I was brought up and educated in a similar context, and in my previous job, I visited numerous schools in rural Bangladesh and talked to teachers) and I considered myself as a part of their system. Yet, teachers viewed me as a stranger. The combination of these two identities (my self-perception of an ‘insider’ identity, and the teachers’ perception of my ‘outsider’ identity’) resulted in teachers’ reluctance to discuss matters they felt sensitive about. When putting questions to teachers, I did not always get the type of response I was looking for. For example, teachers spoke about generic issues, the problems of the education system but not about the situation of the school specifically. Gradually, I built friendly relationships with a couple of the teachers and the headteacher that helped me to gain access to their regular conversations. To build these relationships, I engaged myself with their discussions, and I found that discussing my social and family life was useful to draw their attention and become a part of their community. They were very interested to listen to my experience of studying in the UK, my personal and family life and my professional work. I felt more of an insider and they also seemed to begin to see me in the same way. In this situation, I became a part of their regular discussions. Sometimes, they asked my opinions about their practice and some other matters. My responses in such situations could well have caused

some teachers to change aspects of their practice. Thus, I had to remind them of my researcher identity and humbly refused to comment on any aspects of their practice. Moreover, during the interviews, they responded in ways that assumed I had understood everything, although I did not always understand some of the contextual language that they used.

As time went by, I found that many of the school mechanisms were very new to me. For example, teachers spent a substantial amount of time preventing parents from taking their children home during school time. Sometimes, the teachers resisted and argued with parents, and sometimes they had to let the student go because some of the parents were very influential. At that time, I recognised my outsider status, even though the teachers were considering me as more of an insider at that time. When I asked any questions about their practice which was unfamiliar to me, they explained these in their own and contextual language (sometimes they used professional terms which were not at all familiar to me, sometimes they talked about something which was related to an event that happened before I started my data collection) as if they were talking to their colleague. At times, this became difficult for me to understand. For instance, once I found the teachers were very angry because they had been instructed to perform vows in the morning during the student assembly. In Bangladeshi primary schools, students' assembly is a regulation where students recite from 'Quraan' and 'Geeta' (holy verses for Muslims and Hindus), sing the national anthem, vow to be a good citizen, and do some freehand physical exercises. In recent times, teachers have also been instructed to vow that they will be responsible and accountable employees of the government and do their duty obediently. I tried to understand the reason for their frustration about the new instruction and one of them said,

“Don't you think this is ridiculous? We can't stand for this...”

I understood that they viewed me as a part of their community and expected me to understand such 'obvious' frustration. According to my understanding, this could be

'ridiculous' in two ways. First, they were embarrassed to vow in front of their students because this was a culturally unusual practice. Second, the higher officials' instruction to vow revealed a lack of trust of the government towards the teachers which is an affront to their professional identity. I was not sure in which way it was *'ridiculous'*. However, I realised that they expected me to understand such *'obvious'* frustration. In order to understand the situation fully I had to use more prompt questions for further explanations. The prompt questions and my gestures reminded the participants of my outsider position and that resulted in an elaborated explanation.

Bernstein (1964) argued that the responses to interviews may depend on the elaborated or restricted codes of the linguistic process. The elaborated code is more explicit, more thorough, and does not require the listener to read between the lines. It is only enabled when the respondent does not assume that the listener shares these assumptions or understandings of the topic. Based on the experience above, I decided to signal distance and display my outsidership. I reminded them of my researcher role to help them understand that they should explain things in a way that an outsider can understand.

Nevertheless, as I became more part of the community I was researching, playing the outsider became more difficult. To address this, I tried to make my appearance distinctive. When I began doing my fieldwork I dressed similarly to the teachers to establish my insider image. Later, sometimes I wore formal clothes imposing some distinctions. During the informal talk, I tried to remind them that although I spent most of my life in a rural area and studied in rural schools in Bangladesh, I also spent recent years in urban and overseas contexts, and I had never held a position in a school. These strategies led me to a position where the teachers and I both understood and acknowledged the degree of my outsidership. In this situation, the advantage I enjoyed was that the teachers were very explicit when they talked about something. For instance, they said that they had been provided with a teachers' guide by the government which contains methods and techniques for each lesson.

The teachers are instructed to follow the lesson plan in the teachers' guide by the local education officials (Assistant Upazila Education Officers), which reduces opportunities to discuss things with their colleagues as often as they used to do before. When they explained this concern, they brought the guide and showed examples of how it restricts them to fixed pedagogies.

In brief, the teachers and my own perception of my positionality were continuously being negotiated.

The interaction between the positionalities perceived by me as the researcher and the teachers as my participants affected the data I was collecting. I had to be continuously reflexive and balance the position (Foley, 2002). Reflexivity refers to being concerned about self-knowledge; better understanding the role of the researcher's self in the creation of knowledge, carefully self-monitoring the impact of biasness, beliefs, and personal experiences on research (Dodgson, 2019). During my data collection, I had to be cognisant of my previous knowledge, my relationship with the teachers and my role as a researcher. I developed the following diagram to represent four different situations that I encountered during my data collection period.

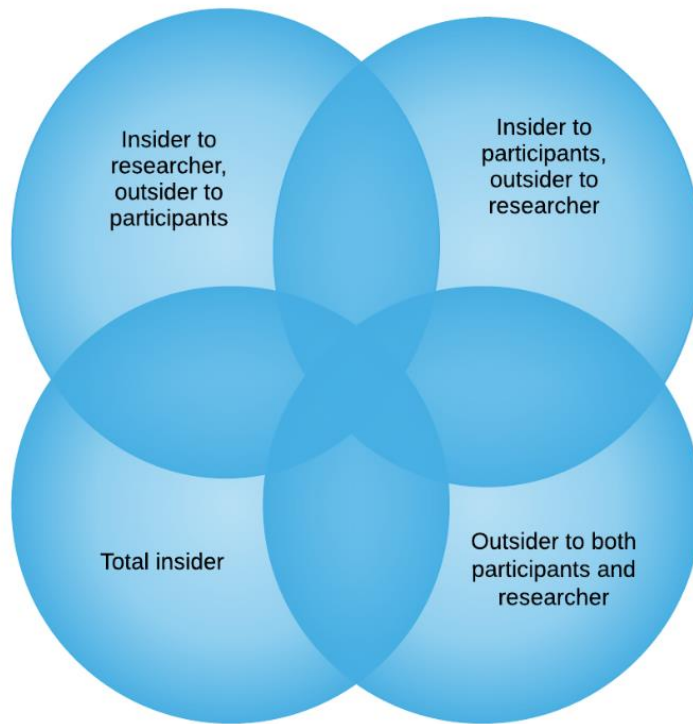


Figure 6: Conceptualising insider/outsider positionality

The diagram represents very distinctive but overlapping positionalities. The first circle represents a situation where I felt as an insider, but the participants took me as an outsider; in the second one (clockwise) the participants started to consider me as an insider, but I acknowledged that many things in the context are strange to me. Third, both participants and myself acknowledged my outsider image and the limitation of my knowledge about the context. As time went on, I established trust but at the same time my outsider image (in terms of understanding the context) to the participants, and their responses became more understandable to me and I felt as an insider. The teachers also treated me as an insider, but they tended to explain many of their responses. This position is shown in the last circle (total insider). The positionalities are overlapping and continuously shifting (Nakata, 2015; Naples, 1996). but it remains important to acknowledge and minimise their effect on the data.

It is difficult to keep observation, interpretation and representation out of the influence of researchers' positionality and identity in the research context (Gergen & Gergen, 2000). Rather, these factors are largely conditioned by the identity and positionality of a researcher perceived by the researcher and the research subject (Vidich, 1955). In this study, the different identities of myself as a researcher affected differently the data I collected and my understanding of the context. The effects were complex and overlapping as my positionality changed. First, when I entered the school the very first time, I had very limited access to the teachers' community. For example, often when I was in front of them, I heard their voices and their topics change. When I interviewed them for the first time, I found the responses were somewhat superficial. For example, when we discussed the existence of collaborative activities in their day-to-day school life, they said that they always worked collaboratively, they observed others' classes regularly and discussed what they experience from their class. This is because, traditionally, people in Bangladesh are unwilling to reveal socially unacceptable things to an outsider which I understand as a cultural insider of the context. Gradually, I managed to build trust (the latter part of this section discusses how I did that) and became a part of their community. This situation gave me comfort and I realised that I was beginning to be perceived less as a researcher. Teachers had begun to see me less as 'an outsider' and 'a researcher' and more as part of their community. Being perceived less as a researcher may cause bias and failure to capture small but important events (Bonner & Tolhurst, 2002). Thus, I wanted to re-establish my researcher position without hampering the relationship built with the participant. For that, I asked more prompt questions, reminded them the purpose of my presence in the school, and changed my attire (the strategies I followed are described in next section).

I was continuously monitoring my position and its effect on my data. I was reflexive conceptually and methodologically (Erlinda C Palaganas, Sanchez, Molintas, Visitacion, &

Caricativo, 2017; E. C Palaganas, Sanchez, Molintas, & Caricativo, 2017). I was aware of the possible effect of the relationship between me and the participants, and at the end of each day, I examined the conversations between me and the teachers. What I found is that the closer my relationship with the teachers became, the shorter and less explicit were the responses. The responses had properties of the restricted linguistic code (Bernstein (1964) which do not allow an unfamiliar/outsider listener' to understand without further explanation. They did so because they took me as a native, but this made it more difficult for me to elicit small but important details from them. Hence, I had to put extra effort to re-establish my researcher role (the strategies are described later). Finally, I managed to make them understand that I needed further explanation of what they were doing in front of me. Then they started to explain their activities and discussions which helped me to achieve better understanding of the context. For instance, whenever teachers had time, they showed me how they did their lesson plans and reports together, explained how they took decisions through discussions. They tried to give specific examples to make it more comprehensive. During this time, they also revealed sensitive issues, such as tensions between colleagues.

The effects of different positionality could be presented as below:

Table 7: The effects of the researcher's positionality on data

Insider to researcher, outsider to participants	Insider to participant, outsider to researcher
<ul style="list-style-type: none"> • Limited access to the community • Teachers' reluctance to talk • Superficial response • Skipping the main point of the discussion 	<ul style="list-style-type: none"> • Responses include contextual jargon • The context becomes hazy • I required more prompt questions • My researcher role was at risk and the respondents were skipping small but important events
Total insider	Both parties aware of researcher's outsider position

- Respondents discussed small matters but in detail
- Better access

- Respondents discussed small matters but in detail

To minimise the effects of a researcher's presence on the data and the interpretation, several methods and strategies are offered by scholars. In the following section, I discuss the extent to which I needed to minimise this effect and the strategies I adopted during my data collection.

Strategies I adopted to balance my positionalities

When the discussion is about minimising the effect of the positionality researchers hold in a qualitative research context, the first and most fundamental question could be why they should invest time, energy and expertise to balance the insider and outsider positionality?

Is it possible to avoid the effect of the presence of a researcher in the context? In qualitative research, I agree that the researcher's role is to understand the situation in context and become reflective about the effect of their presence (Pillow, 2003). But as my concern was the teachers' collaboration, I had to minimise the effect of my presence on their collaboration.

Balancing the insider and outsider image of a researcher to himself and to his respondents is important and at the same time challenging. Hammersley and Atkinson (2007) note that the researcher needs to be a 'marginal native' within the society that is being studied to get access to the participants' perspective and to make the research ethically acceptable. For being such marginal native, several strategies have been suggested by scholars over the years.

Gerrish (1997) suggested that being open, balancing competent action and suspending assumption as well as balancing between building rapport and keeping distance are the

strategies that help to reduce the influence of the presence of a researcher in a research context. 'Being open' means being explicit about the role of the researcher and his/her knowledge and expertise. He suggests that this makes it acceptable for the researcher to ask questions that may sound naïve if asked by an expert in that area. Gerrish also suggests that the researcher may have expertise in an area that s/he can offer to the people who are being researched. This may help the researcher to gain access to and trust of the participants. It also may help the researcher to demonstrate that s/he is not an exploitative interloper (Hammersley & Atkinson, 2007). A researcher can engage himself in doing little things to create a rapport with the participants such as making coffee for them without compromising his/her researcher role (Gerrish, 1997). In contrast, Bonner and Tolhurst (2002) strictly opposed the idea of participating in any practice of the participants during data collection as that may cause a loss of the researcher role in the research context.

Bonner and Tolhurst (2002) identified some theoretical and practical strategies to balance the insider/outsider role. For an insider researcher, first, being reflexive is important. Reflecting on one's own actions and those of the participants and describing the situation in detail may reduce the effect of the presence of a researcher on the data. Practically, they suggest, if a total insider researcher is part of the professional community, s/he may collect data during 'off duty'. If there is a uniform the professional wears, the researcher may wear normal clothes and avoid a uniform because the uniform may downgrade the researcher role. On the other hand, for an outsider researcher, Bonner and Tolhurst (2002) suggest forming an unbiased impression as much as possible about the context at the very beginning, followed by making the initial communication in a way that could reduce the possibility of any tension between the researcher and the participant, such as meeting and talking with participants in a mutually convenient time, not making the observation period too long to make the participant irritated, and not taking notes in front of the participants.

During my preliminary field visit, since I encountered multiple positionalities at different times and with different participants, I had to change the strategies continuously to make my position conducive for authentic data collection. For a smoother commencement, I collected written permission from higher authorities (gatekeepers) given that in Bangladeshi culture, traditionally, the sense of hierarchy is very important (Haque & Mohammad, 2013). Usually, if a researcher has support from higher officials, initial access becomes easier. As mentioned earlier, I wore clothes that are common in Bangladeshi school culture so that the teachers treated me as a part of their community (at least in a broader community). In the first meetings, I tried to use local dialect (I know the dialect as I spent a substantial amount of time in an adjacent district for the purposes of my university study and job) and introduce myself as a person who has a long history of studying education and working with people involved in the education system. I tried to sense the personality of each teacher individually and treated them accordingly. For instance, on the very first day, one of the young teachers was very aggressive. He expressed his frustrations about researchers. He had graduated from a highly esteemed university in Bangladesh. Usually, a person with such qualifications does not come to teach in primary school but rather goes onto other professions with higher social and economic status. Thus, he was disappointed with his current position. He said,

“you are taking much money from the revenue for doing research, do these help at all?”

I had to treat him cautiously and put extra effort to build rapport with him. Since he was very interested in technology, I helped him to use new applications on his smartphone. Eventually, he became very friendly with me and helped enormously to gain access to the culture later. However, as discussed earlier, I lost my researcher identity to him to a great extent at some point, and I had to shift my strategy to re-establish the researcher role in a number of ways, i.e. I minimised time talking about matters not related to my study with

him, When I interviewed him, I repeatedly used prompt questions and made him realise that I did not understand everything he said, and I always questioned the actions of the respondents as well as mine.

When I started balancing my insider and outsider positionalities to both myself and my respondents, I minimised offering my expertise to serve their purposes and engaged myself more in a formal data collection process. My study is aimed at investigating teachers' collaboration with colleagues and studies show that they tend to collaborate in complex situations (Cohen et al., 1979). If I helped them to solve the problems, their opportunities for collaboration (i.e. being in a challenging situation) could be minimised. Nevertheless, I continued to be engaged in their social lives outside of school time. For instance, I attended a local cultural programme with some of the teachers and joined their evening gathering in a local tea stall. These helped me to secure access to the professional community, disrupting it on a minimal level. I continued strengthening the relationship on a personal level rather than in a professional level. Had I been a researcher studying other aspects of teachers' practice rather than their collaboration, I would have engaged myself more in their professional life. A summary of this discussion about the effect of the researcher's positionality and the strategies I maintained to minimise the effect is presented as below:

Table 8: The effect of researcher's positionality and the strategies to minimise the effect

Insider to researcher, outsider to participants		Insider to participants, outsider to researcher	
<i>Effect on data</i>	<i>Strategy to reduce effect</i>	<i>Effect on data</i>	<i>Strategy to reduce effect</i>
<ul style="list-style-type: none"> • Limited access to the community • Teachers' reluctance to talk • Superficial response • Skipping main point of the discussion 	<ul style="list-style-type: none"> • Rapport building • Physical appearance in accordance with context • Local language • Helping participants in using technology 	<ul style="list-style-type: none"> • Responses include contextual jargon • The context becomes hazy • I required more prompt questions • My researcher role was at risk and the respondent were skipping small but important events 	<ul style="list-style-type: none"> • Maintaining distance • Extra effort to clarify researcher positionality • More prompt questions
Total insider		Both parties aware of researcher's outsider position	
<i>Effect on data</i>	<i>Strategy to reduce effect</i>	<i>Effect on data</i>	<i>Strategy to reduce effect</i>
<ul style="list-style-type: none"> • Responses discussed small matters but in detail needed • Better access 	<ul style="list-style-type: none"> • Keeping the relationship continuing • Showing stake in the community 	<ul style="list-style-type: none"> • Respondents discussed small matters but in detail needed 	<ul style="list-style-type: none"> • Reflexivity • Taking detail account of situation

In summary, I argue that a researcher's positionality is not just constructed by either the researcher or the participants in isolation. Rather, the positionality is co-constructed by both the researcher and the participants. This is the product of a complex interaction of construction between the researcher and participants. A researcher may encounter multiple identities and positionalities in the same research context depending on situations and participants. The positionalities are complex and overlapping. To what extent a researcher should make the effort to minimise the effect of his presence and positionality in the research context is difficult to generalise. The researcher must sense the need of his study and the situation of the context to determine the extent to which he should maximise his insider or outsider image. Also, it is difficult to hold a single positionality. Instead, it needs to be accommodated with the need of the situation and the sake of collecting authentic data. As I was investigating the nature of teachers' collaboration, I had to minimise the effect of my presence on their joint activities. Several strategies helped me to do that and I was able to observe their authentic activities.

5.3 Methods of data collection

This section outlines the methods and techniques I used for collecting data. It gives an account of what I used to obtain information from the field and why.

I considered three points before I decided upon the methods for data collection for this research. First, I critically considered the research methods of previous studies. Secondly, the theoretical aspects of the methods were consulted to identify suitable techniques for collecting data for the current study. Finally, I used my judgement based on my experience of research in the Bangladeshi education context for identifying and devising the tools.

When I was going through the existing studies in the similar area to this research, I found a variety of methods used to capture teachers' collaboration and the link between that and a number of outcomes i.e. students learning, school improvement or teacher professional development. Observations and interviews are commonly used in studies that are focused

on understanding the environment and process of collaboration among teachers. For example, Little (1982) conducted interviews with a large number of teachers (105) and administrators (14) to investigate conducive and restricting features of schools as a workplace for teachers continuous learning through collaboration. She used observations to support the findings from the interviews. Similar studies were carried out by Englert and Tarrant (1995) and Dunne et al. (2000) who studied the impact of teachers' peer collaboration on their professional practice and reflections. In these studies, the mix of the two techniques (interviews and observations) was helpful for understanding the discourses that Little obtained through interviews.

The effect of leadership on collaboration (Little and Bird, 1984) was studied using the same methods. Danielowich (2012) observed four teachers during their organised peer group meetings and teaching, over a six months period to understand the process of making meaning of practices by the teachers through collaborations. The close observation in this study helped him to unfold the process of meaning making in a given context. T. Burton (2015), with a similar objective to Danielowich, used a combination of data collection methods. In the study, Burton used open-ended questionnaires, interviews, observations and focus group discussions for understanding the impact of teachers' collaboration on their learning and development in day-to-day school practice. Although she used observation as one of the tools in her study, her analysis has very little reference to it.

In contrast to the qualitative methods, some studies used quantitative methods, such as questionnaire surveys, to quantify the extent of certain perceptions and the nature of collaboration. For instance, Cohen (1976) obtained numeric data to analyse the conducive forces for teacher teaming. However, in the study Cohen tested a hypothesis that included two indicators, i.e. complexity of instruction and open spaces, as influential factors for teaming. However the social context and structure, aspects of interest to my research, were

not part of the study. Similarly, Markow and Pieteres (2009) and Matthew Ronfeldt, Farmer, McQueen, and Grissom (2015) conducted surveys to measure the most and least collaborative activities among teachers, and teachers' perception about quality collaboration respectively. Here, too, the in-depth understanding of the social context was obscure because of the nature of the methodology.

In my study, neither the research question nor the philosophical standpoint align with a positivistic approach to research. Society is complex and a school is a society within a society which makes it even more complex. For an in-depth understanding of the context and the behaviour of the participant a qualitative approach is more useful (Nunan, 1992) than a numeric analysis of multiple variables. Hence, I adopted a qualitative approach to this study.

Within qualitative methods, observation is a helpful tool to understand the social context and human behaviour as well as the interaction between the two. Given that people are usually reluctant to unveil their practice to an outsider during an occasional interview, an in-depth observation helps to understand their activities and situation. Teachers' practices in a school are often considered as private and restricted for an outsider to understand (Conley, 2013). In such a situation, the researcher's task becomes to get through the institutional obstacle-course to gain entry and to penetrate into the inner reality of participants' activities (Punch, 1993).

As there is always an intention of keeping their real practice private among teachers, their practices are naturally difficult to see and understand, and there could be deliberate attempts to hide or misrepresent practice. Thus, I found a participant observation technique was suitable for my research. Participant observation is the process of establishing a place in some natural setting on a relatively long-term basis in order to investigate, experience and represent the social life and social practices that occur in that setting (Emerson, Fretz and Shaw, 2007). This assumes that a prolonged presence in the context may allow

building trust and rapport with the teachers and that their natural practices may be unveiled. It actually helped in both balancing my positionality and understanding teachers' practices in the school where I conducted my research. However, I kept my participation in their professional activities to a minimum so that I did not interrupt their collaborative practices.

Through this prolonged stay and the observations I made, I tried to understand the way teachers work jointly. I decided to explore the nature of teachers' collaboration in a day-to-day context so that we can understand how teachers develop professionally in a routine situation and if they need any support. Because my focus in this study was on the nature of teachers' collaboration itself, I chose not to use classroom observation data to look for an association between the way teachers collaborate with colleagues and the way they teach in the classroom. Moreover, it was my informal impression that direct effects of collaboration on an individual's teaching were not apparent. It is, of course, possible that such a relationship might be established through a much bigger research project, probably involving many researchers over a long period. In any event, my video recordings did capture some classroom teaching (focusing on the teachers' practice only, not on the students) and this was of value in helping me understand how they teach.

Yet, a single method is not enough to understand the human agency and social structure involved (Bhasker, 2013). Therefore, in addition to the observations, I also used interviews to understand the phenomena I observed. In previous studies, a combination of observations and interviews is commonly found as these two complement each other. Where researchers used an interview as a main data collection tool, observation is often used to supplement it (e.g. Little 1982), In such cases, the two methods were used to triangulate data. In the case of this study, the observations were the primary tool and participants were interviewed to understand what was observed. For this reason, these were more informal interviews than formal semi-structured interviews. A semi-structured

interview involves a series of questions that may vary in the order they are asked and the interviewer has the latitude to ask further questions in response to a significant reply (Bryman, 2016). I interviewed four teachers and the head-teacher to understand their perception of collaboration using the semi-structured interview schedule. Any event I observed that was interesting or obscure to me, I clarified through informal ad-hoc interviews with the teachers. I was very flexible in both observing and interviewing participants. As such, I was my own research tool in the field (Punch, 1993) rather than using organised and fixed tools to enable access to the day-to-day regular life of the teachers in the school.

In the earlier stages of this study, I explored the possibility of using teachers' journals (Boud, 2001; Moon, 1999, 2006) to obtain an account of teachers' day-to-day joint work with their colleagues. The idea was to give each teacher a diary and ask them to record at least once a week what they did and what they discussed with their colleagues. However, when I went to the school for a preliminary field visit, the teachers were found extremely busy and it was understood that the diaries were most likely to end up with nothing in them. Hence, I decided to do a succession of ad-hoc interviews. Teachers' staffroom conversations were also recorded. The detailed descriptions of the research tools are given below.

5.3.1 Observations

I used a participant observation technique in this study. For registering my observations, I used a schedule which is more of a structured field note (Emerson et al, 2006). I recorded the events during school days (such as when teachers came to the school, any joint work between teachers outside of the staffroom, teachers' discussions with parents etc.). These were interesting to me as a researcher who was researching teachers' day-to-day collaboration. Following the example of EIA (2014), a timed observation schedule was devised to make the data collection process structured, systematic and organised. EIA

(2014) used a timed observation schedule to capture teacher's classroom practice in every minute. The tool was devised in a way to facilitate numeric analysis of classroom practice. A series of different activities were listed in columns and minutes were in the rows. The observer ticked an appropriate cell in each minute to record what the teacher or students do.

However, the observation schedule used in the EIA study was aimed at obtaining quantitative data, and it did not allow space to record any description of the situation. In this study, the observation schedule (Appendix-I) was developed based on the concept of opportunistic or emergent sampling (Robert Wood Johnson Foundation, 2008).

Opportunistic or emergent sampling allowed me to make decisions about what to record and to take advantage of events as they unfold. This strategy is useful for research of an exploratory nature. This strategy also helped me to foster reflection. The observation schedule was developed in a way that allowed me to record a detailed account of events and situation at a certain time. The tool allowed me to observe any event, its location, time, the area teachers collaborated in and any factor that influences collaboration. Each row was dedicated to recording what was happening in one school hour. Detailed notes were taken of any event that was interesting from the teachers' collaboration point of view. Additional spaces were used to record further events if necessary. This schedule helped to record teachers' day-to-day activities with their colleagues as well as to facilitate informal interviews with teachers.

I took notes of observation on paper rather than typing into a computer to ensure speedy note taking. I took the notes as each event occurred. Teachers were inhibited at the beginning. The headteacher looked over my shoulder. I showed the headteacher what I had written. The note taking process had an impact on the teachers at the beginning. However, I put effort on building trust and rapport and after few days the effect of my note taking was trivial.

5.3.2 Headteacher interview

A semi-structured interview with the headteacher (Appendix G) covered a discussion about the provision of school-based teacher development activities, administrative support for collaboration, headteachers' attitudes towards teachers' collaboration, and the socio-cultural factors that influence collaboration and classroom practice in this school. The interview also involved eliciting the headteacher's view on those matters. The headteacher interview took place in the second week of data collection. I allowed time to build rapport so that the interview would be more effective. The interview was audio recorded. In addition to this formal interview there were many informal question and answer episodes between the headteacher and me during the data collection period, some of which were recorded, some not.

5.3.3 Teacher interview

A semi-structured teacher interview (Appendix-H) was aimed at understanding teachers' perceptions about collaboration, the time, place and people they believe are suitable for collaboration, the motivation and barriers for collaborative activities and how the activities are related to their professional development and classroom practice. These interviews provided insights into teachers' perception, their agency and how they work in a CoP to reconstruct their understanding of their professional and classroom practices. It also underpinned the findings from the school observation data. These interviews were conducted with four teachers who seemed to be more engaged in interactions with colleagues than others. In addition to the formal interview, teachers were consulted whenever any explanation was needed. The time, location and content of the interviews were flexible and depended on the need to understand any event or situation fully (Guest, 2011). Interviews were audio recorded.

5.3.4 Staffroom discussion

To underpin the observation and take a detailed account of what teachers did and discussed together, their staffroom discussions were recorded using four digital audio recorders.

Three recorders were given to three teachers who willingly accepted the responsibility to record the conversations when they were engaged in any. I used another recorder which was switched on whenever more than one teacher and me were present in the staffroom. Teachers were consulted for their permission to record the conversation. The use of the teachers' recorded conversations raised some ethical concerns for me, but more on the detailed ethical consideration for such recordings and overall research participation is described later in this chapter. A summary of types and amount of data is also provided later.

5.4 Approach to analysis

The data analysis began as soon as I started thinking about the design of the project. I foresaw the type and nature of data I was planning to collect and continuously developed the framework of the analysis of the data during the design stage. When I started my field visit, I understood that my role in the field would be as data collector as well as an analyser of the situation (Guest, 2011). Both roles were similarly important because the purpose of the data collection was to understand the social structure and teacher agency and the interaction between the two. The field was the best place to understand those rather than my desk after collecting the data. Nevertheless, the main formal analysis started once I had returned from the field. The research questions and the theoretical understandings were the drivers for determining the analytical framework. As the research aim was to understand teachers' collaboration in a school and to see the relationship between teachers' agency and the social structure of the school, Bronfenbrenner's (1993) ecological model was found to be most suitable for this aim.

According to Bronfenbrenner (1993), to understand human development the whole ecological system in which individuals live needs to be understood. Tikly (2014) proposed a ‘laminated learning system’ based on the ecological approach of human development. According to the ‘laminated learning system’ to understand an individual’s learning several layers of his/her ecology need to be understood. The first layer called ‘Macrosystem’ comprises the political economy, gender and ethnic relationships, cultural norms and values, global and indigenous knowledge system, and national and global educational ideologies. The second layer ‘Exosystem’ includes the structure of the educational system; global and national policy and legal framework governing education, education finance; aid modalities; management and information systems; teacher training; the curriculum; and international and national assessment regimes etc. The third layer is called the ‘Mesosystem’ and includes the linkage and process between home, school and community, school governance, feeding schemes, community health care etc. Fourth, the ‘Microsystem’ includes the structure of formal and informal learning environments and pedagogical practices; and structure of regulatory institutions and discourses. Finally, the most central layer is the ‘Individual level’ consisting of genetic predisposition, the structure of the brain, mind, personality, health and wellbeing.

To analyse teachers’ collaborative activities and the factors that influence those an adapted version of the laminated learning model (Tikly, 2015) is used as shown below:

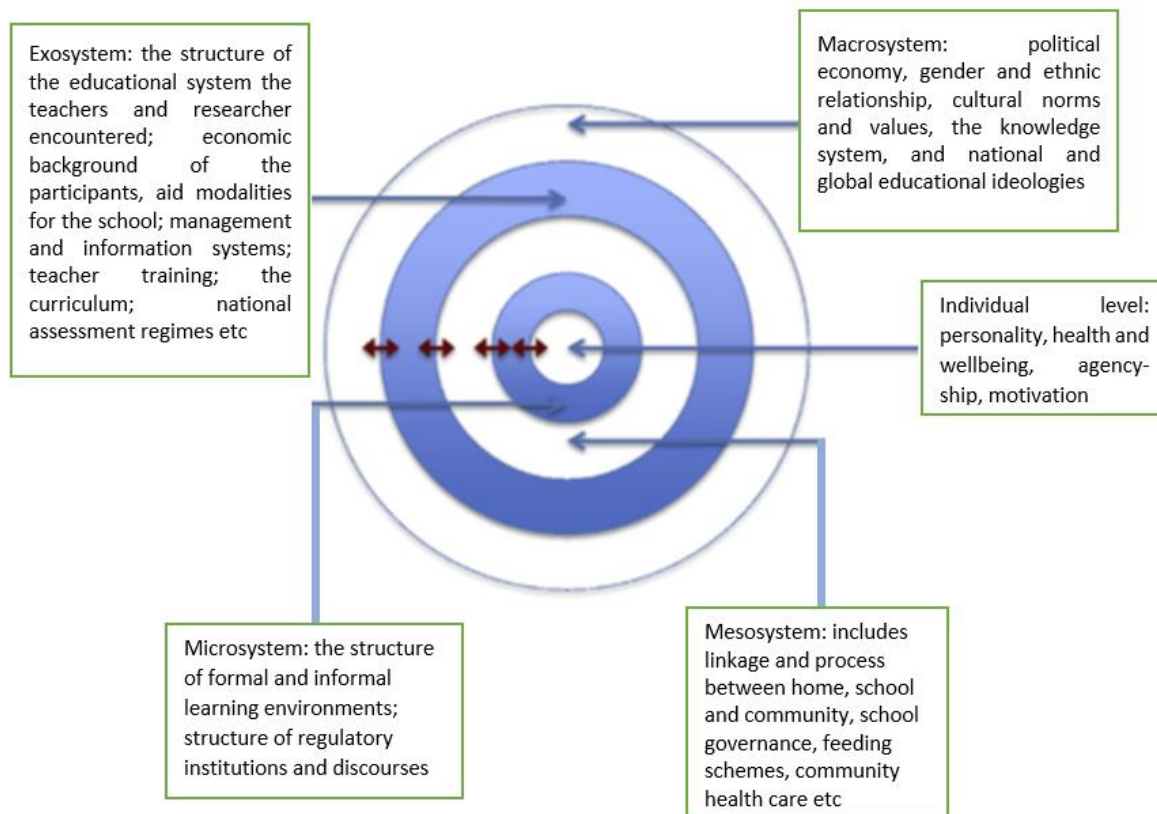


Figure 7: Laminated learning in this study, adapted from Tikly (2015)

First, participants’ socio-economic background, such as political economy, gender and ethnic relationship, cultural norms and values, the knowledge system, and national and global educational ideologies are important for this study. These affect teachers’ collaboration. Secondly, the structure of the education system influences teachers’ activities in the school. Furthermore, management and information systems, teacher training, the curriculum and national assessment all influence teachers’ activities. Thirdly, linkage and process between home, school and community, school governance, feeding schemes, community health care etc. are important elements that influence teachers’ day-to-day activities in school. The structure of formal and informal learning environments, along with the structure of regulatory institutions, such as local education authority, influence teachers’ school work. Finally, teachers’ personality, health and wellbeing, sense of agency and motivation are important aspects to understand the nature of collaboration

they are involved in. Hence, Bronfenbrenner's model compliments the Critical Realist philosophy (Tikly, 2015). According to the Critical Realist ontology, we need to take human agency, social structure and the interplay between the two need to be analysed to understand a social event. However, 'social structure' is an abstract concept. In this study, the Bronfenbrenner's model has provided me with an analytical framework for 'social structure' and human agency. This ecological systems model enables understanding of the multiple aspects to be analysed in a society. For instance, an analysis of the individual level of a person helps to reveal his/her agency, the analysis of other levels helps to understand the social structure.

To make the meaning of data in accordance with the laminated learning model, a thematic analysis approach (Braun & Clarke, 2006) was adopted. This approach helped me to make meaning of the data rather than merely describing implicit ideas (Guest et al 2012).

However, this approach is often criticised on the basis that it does not have appropriate rigour and can be biased as the researcher decides on the points of interest, the codes and the themes. Yet, all research can be accused of bias as it is guided by a human researcher (Hennick et al 2011). Moreover, a six-phase process suggested by Braun and Clarke (2014) gives the necessary rigour for analysing qualitative data.

Although, in their suggested process Braun and Clarke called it an inductive method as a researcher goes from specific instances (code) to a general theme, in my study I followed a retroductive approach when doing the thematic analysis. A retroductive approach provides a researcher with the flexibility to blend both inductive and deductive methods (Tikly, 2015). I created some themes based on my learning from the literature reviews, then after the fieldwork I also produced codes and themes by reading my data several times. During that coding process, I had an opportunity to regularly scrutinise my previously created themes.

A qualitative data analysis software called ‘NVivo’ (version 11) was used in every phase of the data analysis (the structure of the project in the NVivo software and some codes and themes on it can be found in appendix J and K respectively). Firstly, after coming back from the field, I skimmed through the data and categorised them into types (i.e. interview, staffroom discussion, field note) and uploaded into the software. Then I read the field notes and listened to the audio files (from interviews and staffroom discussions). I included all the interview and fieldnote data for analysis. However, I used selected staffroom conversation data for analysis because the amount of the staffroom conversation recorded was very high and some recordings were either not usable (not audible or too short) or not relevant. By listening to the audio files several times, I identified suitable files for transcription. The criteria for selecting the audio files for transcription were audibility, the sufficiency of content and suitability of content. This process was applied to the data as summarised below:

Table 9: Summary of data

Data	Number of Files	Type of File	Duration	Transcribed	Duration transcribed
Teachers' Staffroom Discussion	111	Audio	55:20:00	38	17:26:00
Interview	15	Audio	03:53:47	15	03:53:47 ⁴
Field Notes	22	PDF	N/A	22	N/A

All the data were uploaded onto the analysis software. Different folders were created for different types of data and documents.

Field notes were scanned and uploaded onto the software which allowed me to analyse the scanned files without the need for transcriptions. I transcribed the audio files onto the

⁴ Four interviews were formal and 11 were informal and shorter in length

NVivo software, which allowed me to control the pace of the audio and enabled frequent backward-forward skipping. It also produced the transcript using real-time frames, which means that it shows the time of the audio segments beside the transcription. This facilitated easy access to any sections of interest. I transcribed from the audio into the original language (Bangla) to understand the data appropriately.

Table 10: A sample of transcription of the audio data (Staffroom conversation on 17/10/18)

	Timespan	Content
1		Length: 10:59 Content: About school furniture with HT, classroom talk, student identity, Quality: Average
2	0:00.0 - 0:01.0	হেড: দুই ফিট আছে উচ্চতা
3	0:01.0 - 0:03.4	সুফি: উচ্চতা একটু আমরা বসব আর...
4	0:03.4 - 0:04.8	সাজ:ধ একটু বেশি দেন
5	0:04.8 - 0:12.1	হেডি: না আমাদের বসার জন্য আর বেঞ্চ নাই? মানে ঐ বেঞ্চের চাইতে এই বেঞ্চ উচা হইলে ভালো দেখা যাবে না... মাপ তো সমান থাকতে হবে...
6	0:15.2 - 0:27.2	হেড: দুই ফিট.. উচ্চতা ২ ফিট... (সুফি রাইটিং দ্য মসোরমেন্ট)
7	0:15.5 - 0:15.6	সুপি: আচ্ছা ঠিক আছে
8	0:27.2 - 0:36.7	নো স্পিচ
9	0:36.7 - 0:51.0	বিউ: দেখাছেন! ছোট্ট পোলাপান পরীক্ষা দিছে, (?) বোঝা যায় না...
10	0:51.0 - 0:52.8	সাজ: কার?

All these processes helped me to revisit the data easily and this is how I familiarised myself with my data after coming back from the field.

In the second phase, when I completed my transcription, I started coding the data. As mentioned above, I initially identified some codes and themes from my understanding of

the literature and the field. The screenshot of the NVivo interface on the next page is an example of codes I produced from my literature review.

Nodes				
Name	Sources	References	Created On	
autonomy plays bifercated role		1	1	07/01/2018 06:55
Balance between autonomy and collaboration		1	1	06/01/2018 22:13
Benifits of Teacher collaboration		2	6	28/12/2017 07:32
Collaboration and coooperation		1	2	08/05/2018 22:59
Collaboration and CP		2	3	28/12/2017 07:38
Collaboration in TPD in UK		1	1	08/05/2018 22:09
Collaborative attitudes within the concept of autonomy		1	8	06/01/2018 22:44
Definition of teacher autonomy		1	3	05/01/2018 19:48
distingling autonomy and collaboration		1	2	07/01/2018 07:09
easing concept of autonomy		1	2	06/01/2018 22:15
History of teacher collaboration in UK		1	2	08/05/2018 22:23
Lack of research on TC		1	4	28/12/2017 07:33
Language indicator in collaborative relationship		1	3	08/05/2018 22:55
Level of collaboration		1	1	28/12/2017 07:23
Methods for teacher collaboration reserach		2	3	08/05/2018 22:04
Paucity of collaboration		2	3	28/12/2017 07:27
perallel relation between collaboration and autonomy		1	1	07/01/2018 19:47
Research Context		1	1	28/12/2017 07:12

Figure 8: Codes developed during literature review

Then I read the data several times, identified segments of the data relevant to the codes I developed earlier and produced new codes. At this stage, first I categorised the data cases. A case is all the data from an individual respondent. I read the cases repeatedly and developed 355 codes altogether. During the coding and theme creation process, the codes and themes were discussed with my supervisors and fellow researchers to see whether the themes are meaningful. The following is an example of part of the coding scheme. A teacher in a staff meeting was discussing that not all the teachers in this school have training on digital content making and this could be a topic in next need-based cluster meeting. This discussion is put under ‘Discussion on next TPD meeting’ code.

The screenshot shows the NVivo interface. On the left, a 'Nodes' pane lists several codes with their source and reference counts. The 'Discussion on next TPD me' node is selected and highlighted in blue. On the right, a detailed view of this node is shown, including a reference list and a snippet of text in Bengali.

Name	Sources	References
Coordinating with colleagu	2	3
Disctributing responsibility	2	2
Discussion on next TPD me	1	6
Head checking if LP is up t	1	1
School discipline	1	2

Reference 5 - 0.72% Coverage		
37	9:49.4 - 9:57.7	নাজ : এখনতো কন্টেস্ট কন্টেস্টেত্তরী করা তে না বাকি টা দুই দিনি সবাই পারবে ...

Figure 9: Example of a code

Thirdly, the initial codes were revisited. I merged similar codes into general umbrella codes to create provisional themes. Through this process, some thirty themes were identified. Later, the initial themes were scrutinised based on the demands of the research questions. This process came up with three themes in relation to the teachers’ perception of collaboration, eight themes (under two broad areas) related to the nature of teachers’ collaboration and three themes for factors that influence teachers’ collaboration.

For example, the following screenshot of NVivo shows how codes were merged into provisional themes and then the provisional themes created themes in this study.

Nodes		Sources	References
Name			
Planned Collaboration		22	146
Ad-hoc basis teaming		4	13
Arguing with AUEO for projector		1	4
Head and Sazz manazing AUEO and providing necessary in		1	2
Organising ad-hoc events		3	3
Presenting demand to authority on behalf of colleagues		1	4
Co-Teaching		8	17
Planning Lessons		5	8
Proposing mutual benifit		1	2
Sharing classess of absent colleagues		2	7
Professional development	Theme	10	56
Staff meeting (TPD)		8	42
TPD Need	Initial Theme!	5	14
Coordinating with colleague to manage absent colleag		2	3
Disctributing responsibility		2	2
Discussion on next TPD meeting	Codes	1	6
Head checking if LP is up to date		1	1
School discipline		1	2
Routine management work		15	60
School Operation		15	60
Exam prep		8	11
Extra-Curricular		1	9
Financial decision		5	7

Figure 10: Example of process of theme creation

Continuous discussions with my supervisors and colleagues helped me to define and name the themes and this was my fifth phase of the analysis. The themes in relation to teachers' perceptions of collaboration were:

- a) What teachers mean by collaboration
- b) Perceived importance of collaboration
- c) Perception related to the process of collaboration

The nature of collaboration was discussed under two broad areas, and each area contained several themes such as

1. Planned collaboration
 - a. Co-teaching
 - b. Professional development oriented
 - c. Routine school management tasks
 - d. Ad-hoc basis teaming
2. Unplanned collaboration
 - a. Creating identity and solidarity
 - b. Restructuring knowledge
 - c. Creating student identity
 - d. Creating shared leadership
 - e. Creating liminal spaces

The themes related to factors affecting teachers' collaboration were:

- a) Influence of wider cultural factors on teachers' collaboration
- b) Organisational factors
- c) Teachers' personal experiences

The final phase was the write-up. In this phase, I reviewed the literature, described the context and the methodology of the research, presented data in two different chapters because it was recognised that combining the full findings in a single chapter would make reading and comprehending the content difficult. The findings related to teachers' perception of collaboration and the nature of collaboration were combined in the first findings chapter (Chapter 6) since the nature of collaboration was often informed by the perception of the teachers. The second findings chapter (Chapter 7) includes the factors affecting collaboration. In the data presentation, the source of data is indicated at the end of any quote. The quotes are also labelled according to whether they are from a male or a female teacher. When a staff room conversation is presented, (M)/(F) is mentioned next the pseudonym of the teacher to indicate the gender of the respondent. This was done to enable

inferences to be made regarding the difference between the nature of male and female teachers' collaboration. Finally, I compared and contrasted the findings in the light of the existing literature and the theoretical framework set for this study.

5.5 Ethical aspects

This study followed the 'Revised Ethical Guidelines for Educational Research' of the British Educational Research Association (BERA, 2018). I went through all the necessary ethical procedures stated in the Open University Code of Practice for Research (The Open University, 2013a). Research carried out at the Open University UK is undertaken within a structured framework, which includes assessment by the OU Human Research Ethics Committee (HREC). The research is governed by, and adheres to, Open University policy including documents available on the OU Research Ethics website (<http://www.open.ac.uk/research/ethics/>). A full ethics proposal for this study was made to HREC and was approved (Please see Appendix A).

The BERA guidelines were followed in the following ways:

Voluntary Informed Consent and right to withdraw: The purpose and process of the research were explained in detail to the central body of primary education administration, Directorate of Primary Education (DPE), the local authority (District and Upazila education offices), the headteacher and the participating teachers. Written consent was requested from all parties when they agreed to participate. The information letter and consent forms were translated into the local language to convey the message clearly (a copy of each document can be found in Appendix C, D and E, respectively). Participants were assured that they could opt out from the study at any time. Since I was in the school on each working day during the data collection process and interviewed teachers every week formally and informally, they had the opportunity to express any reluctance for participating at any time. However, no teacher was found reluctant to participate.

Openness and disclosure: This study has no component where deception was needed. All the processes were explained clearly to the participants. At the end of each visit, a debriefing with headteacher and the teachers was conducted to explain the data collected during that visit. Written consent was obtained for both recording staffroom discussion and formal interviews. Informal interviews were recorded after taking oral consent. I conducted a debriefing session at the end of each week during the fieldwork period, when I presented all the data to the participants and anything they were reluctant to share was discarded. This happened only once in the entire data collection period. I checked the assumptions and interpretations of the data with them from time to time, and when necessary, during the data analysis over the phone. For instance, the data showed that a senior female teacher was given instructions and feedback by one of her junior colleagues. From the staffroom conversation (tone of their conversation) it seemed to me that she was happy to receive that feedback. I called her and explored how she felt about receiving feedback from a junior colleague. She confirmed that she appreciated the comments, which she used for improving her teaching.

Incentives: The participants were encouraged to participate in the study by the rationale for the research. The purposes and significance of this study were explained to the participants. It was understood that delivering an explanation may affect how teachers collaborate in their natural situation. However, prolonged fieldwork and building rapport minimised the effect as explained in the positionality section.

As members of the primary education system, teachers showed interest in developing their practice and any research that may contribute to developing the teaching-learning process. Hence, the relevance of my research convinced them to participate during the earlier field visit, and they also expressed interest to be a part in the main study. No material incentives were provided. However, snacks were provided when the teachers were in the school after their school working hours for the purpose of the research (e.g. debriefing on the data

collected). Moreover, I promised to provide a copy of the thesis when it is finalised and I have permission from the university to share with others.

Privacy: The participants were assured that all the information about the school and the opinions of teachers' and headteacher would be kept confidential. Data would be securely stored in a password-protected laptop, with only the researcher and his supervisors having access to those. In this thesis, all the relevant information is used anonymously.

Conversely, I recognised participants' rights to be identified with any publication of their original works or other inputs, if they so wish. In addition to that, all information was cross-checked by the provider before being used for publication and any aspects they wish not to share would be discarded. However, no participant disagreed to share any aspect of the collected data.

Disclosure: Although I ensured the confidentiality and anonymity of the data, nevertheless, any illegal behaviour of the participant that may harm others (such as child abuse) would be considered for disclosure and that was explicitly explained in the consent letter. However, there were no instances of this.

Consent: Information letter (please see Appendix -C) and consent forms for school authority (Appendix - F) and teachers (Appendix - D) are included in appendices. Please note that all the information letters and consent forms were translated into local language (Bangla) so that participants could understand properly.

5.6 Chapter Summary

This chapter described the methodological aspects considered in this study. First it illustrated Critical Realism (CR) as the philosophical standpoint of this study. It is argued that to understand the nature of teachers' collaboration, it is necessary for teachers' agency and the social structure in which they live to be understood. A CR ontology offers a framework for such understanding. CR suggests that to understand a social phenomenon, it

is necessary to analyse the agency of the members of the society, the social structure and the interplay between the two.

Secondly, to understand teachers' agency and the social structure, an in-depth insight of the context is to be understood. It is argued in this chapter that, not only the organisational context but wider socio-cultural norms and values are important to understand to analyse the social structure of the school. Therefore, an ethnographic study which calls for the understanding human behaviour in context is proposed for this study.

The chapter explained a researcher's positionality and its association with the data collected. It is argued that one of the major challenges for an ethnographer is to balance the 'insider' and 'outsider' positionalities. The both positions are assumed to have impact on the data. The implication of positionalities becomes more complex when the research is concerned with 'collaboration'. The position of the researcher in the research context may influence the nature of the collaboration that takes place. In this chapter, I argued that 'insider' and 'outsider' positionalities cannot be considered as fixed from the start but are co-constructed across the research. The positionalities and their effects may differ in different situations and any action taken to minimise the effect needs to take the situation rigorously into account.

The research tools and why and how they were used were described. Observation, interview (teacher and headteacher) and staffroom discussions were the data source in this study and those were described in detail. Then the chapter focused on the data analysis approach adopted in this study. A thematic analysis approach was used, and the process was described in this chapter.

Finally, the ethical considerations and the limitations of this study were illustrated. The British Educational Research Association (BERA, 2018) guideline for ethics in research and the necessary ethical procedures stated in the Open University Code of Practice for

Research (The Open University, 2013a) were followed. The chapter explained how voluntary participants were recruited and their privacy was maintained. The chapter ended with acknowledging the limitations of this study. It is argued that although this study does not intend its findings to be generalisable, the findings can be applicable in similar contexts.

Chapter Six: Findings - Perception and nature of teachers' collaboration

6.1 Introduction

This chapter presents the findings related to the first and second research questions of this PhD study. Section 6.2 deals with the first research question and reveals the participating teachers' perceptions of collaboration. Section 6.2.1 illustrates what teachers meant by collaboration. Section 6.2.2 reports on teachers' perceived importance of collaboration. Section 6.2.3 explains teachers' understanding of the process of collaboration. It considers how teachers understand the processes of collaboration: what did they think they should collaborate on and how did they think they should go about it: why, with whom, and where and when.

In the later part (Section 6.3) of this chapter, the nature of teachers' collaboration was analysed. This section analyses what teachers did together with colleagues and how they did it. The nature of collaboration is analysed in two broad categories. Section 6.3.1 illustrates the first type, *Planned Collaboration*. Four different areas of planned collaboration amongst teachers are described in this subsection. They are a) Co-teaching; b) Professional development oriented; c) Routine school management tasks and d) Ad-hoc basis teaming.

In 6.3.2 the second broad type of teachers' collaboration, *Unplanned Collaboration*, is presented in four categories: a) Creating identity and teachers' solidarity; b) Restructuring knowledge; c) Creating student identity; d) Creating distributed leadership and e) Creating liminal spaces.

The tables below summarise the structure of this chapter.

Table 11: Presentation of research question - 1

6.2 Teachers' perceptions of collaboration	6.2.1: What teachers mean by collaboration
	6.2.2: Perceived importance of collaboration
	6.2.3: Perception related to the process of collaboration

Table 12: Presentation of research question - 2

6.3 Nature of Collaboration	6.3.1: Planned collaboration	Co-teaching
		Professional development oriented
		Routine school management tasks
		Ad-hoc teaming
	6.3.2: Unplanned collaboration	Creating Identity and Teacher Solidarity
		Restructuring knowledge
		Creating student identity
		Creating distributed leadership
		Creating liminal spaces

6.2 Teachers' perceptions of collaboration

6.2.1 What teachers mean by collaboration

In the Bangla language, the translation of the English word *collaboration* is সহযোগিতা (ShoHoJogita), and I had to use this Bengali term, along with the English word, to explain my research and to interview the teachers. ShoHoJogita had the meaning of 'to help in an activity' and the translation of 'help' in Bangla was ShaHajjo which connotes 'doing a favour' (Bishwash & Shailendra, 1973). The data showed that this meaning had an influence on the perceptions of teachers towards collaboration. Teachers indicated that any work they do together with their colleagues, to help each other, was collaboration. The

help ranged from professional to personal matters. For instance, when asked the meaning of collaboration (ShoHoJogita), a male teacher said:

I think I am very attached to my colleagues. Whenever I am stuck with anything I discuss with my colleagues, it could be about my lesson or my personal life. Our environment is very friendly. (Interview)

In his narrative, he emphasised ‘help’ to solve any problems as well as the social relationship with colleagues. That is, his colleagues are part of his life and he could seek help from them in any situation whether it was a professional or personal matter. In another instance, another male teacher said:

We spend more time with our colleagues than our family members, we cannot go without their help. We support our colleagues in professional, personal and emotional areas. (Interview)

These comments reflected the social cohesion among the teachers in the school. Data collected during field work evidences that teachers were socially and emotionally attached to each other. Teachers were observed to express sympathy and to communicate with particular political leaders within the local community to defend a colleague when a parent complained about him in the local education office. All the teachers in this school were local, and they knew each other at the family level. Their social and professional lives were overlapped, and it was difficult to analyse the two separately because their professional interactions were embedded within their social interaction. The teachers indicated that the ‘SoHoJogia’ they did with colleagues was not restricted to professional aspects but extended to their social and personal lives. Their professional life was influenced by their social and personal relationship and vice-versa. A female teacher said:

We do a lot of discussions about family affairs.... Nazu (a female colleague) is my aunt... I often share my family matters with her whenever we have time....
(Interview)

The responses presented above indicate that for the teachers, helping each other in professional, social and personal matters constituted collaboration. According to them, they jointly planned lessons, discussed their teaching, organised extra-curricular events in the school, met socially outside the school, visited each other houses, lent each other money, helped in instances of social need and took care of each other's children. These things all meant 'collaboration' to them. Even mild social gossip was considered as a collaborative activity as they believed such interactions served some professional purposes such as easing burnout.

A male teacher said:

These gossips give us relief from the tiring teaching... you see the class size and the chaos in those!... (Interview)

While the teachers mentioned both professional and personal/social aspects when describing their understanding of collaboration, the headteacher indicated mostly professional activities when he discussed collaboration. The activities he mentioned when exemplifying teachers' collaboration in his school included work related to teaching and school-management tasks with the majority being of the later. He continued:

The main duty of a teacher is to teach. However, we must do countless types of works.... For example, works from the health department, to apply the dose of anti-worm tablets to the children; assignments from election commission... (Interview)

During the analysis of teachers' response to the question, 'what do you mean by collaboration?' an attempt was made to identify the most frequent words used to explain collaboration. It was found that a variety of words and activities were referred to by the

participating teachers and the headteacher to indicate collaborative actions they perform inside and out of the school. These words included: discussion, teaching, lesson planning, and evaluation.

However, according to an NVivo *word frequency analysis*, the most frequent word teachers used was ‘discussion’. All five teachers, including the headteacher, indicated discussion and stressed the idea to explain teachers’ in-school collaboration. By the word ‘discussion’ they meant talking in a group for solving problems (professional and personal), planning (lesson and other social and professional work) and sharing experiences (professional and personal).

For instance, every week during the data collection period, teachers were asked to give examples of collaborative activities they had done last week to gauge what activities are *collaboration* to them. When asked to mention some joint work he had done last week a male teacher said:

I discussed with the headteacher about a question that was in our last second term exam. We had confusion about the solution of the question. First, I consulted one of my colleagues but failed to come to a consensus, then we went to the headteacher. (Follow up interview)

In this response, the teacher mentioned the action word *discussing*. By this word, he meant a joint problem-solving activity. There was some confusion about an answer to a question that appeared in an examination paper. Different teachers were marking the answer to the question differently. Thus, they needed to come to a consensus to ensure a standard of marking. Through discussion, they tried to come to a common understanding.

In another response, a male teacher argued that due to lack of time they cannot always observe their colleagues’ classrooms and provide feedback (these activities are encouraged by the education authority and teacher training projects for their professional

development). Yet, they fulfilled the expectation to observe and feedback informally by ‘discussing’ after conducting lessons. The teacher said:

...we do not have the opportunity to go to others class, we do not have that time. We are busy with our class. We can discuss after coming from the class and ask a colleague that this is the problem I faced in class, she can give us some suggestions. I cannot take that teacher in my class to show; I cannot say that see this is the way I conduct the class but not successful.... we do not have that opportunity.... (Interview)

Here, too, by the word *discussion*, he meant experience sharing.

Several teachers mentioned evaluation as one of their collaborative activities. They referred to preparing exam questions and marking test papers as ‘evaluation’. The reason for the frequent mention of evaluation is most likely that during the data collection period, the teachers were instructed by the headteacher to prepare mock papers for the students who were approaching their first public exam. The teachers were observed to be engaged in making question-papers for the mock test. They were discussing the questions they were planning to include in the test and their solutions. The preparation of this assessment probably made them indicate ‘evaluation’ as an example of their collaborative activity.

Along with professional collaboration, the teachers also mentioned activities that are not related to their day-to-day teaching or school related tasks. As an example of collaboration with colleagues, a female teacher said:

We had fun in Pohela Boishakh (Bengali New Year)... We both [with one of her colleagues] went to a place... We decided together... Near to her house... It was a family day out... It was a fair... We spent some time together. (Follow up interview)

As mentioned before, teachers in the school have a high social attachment, including at the family level, which made them interact frequently outside the school. They were observed having social interactions with one another outside of their professional activities, and they

reported that they consider these to be collaboration.

An example of collaboration that involves a high level of trust and commitment is that some of the teachers created a co-operative to raise money to invest together. Four teachers said that they were not able to afford a plot of land for building a house, so they formed a co-operative and bought a piece of land. Buying land in Bangladesh is often risky as there is pervasive fraud in the sector. It is not uncommon for fraudulent agents to sell the same piece of land to different buyers by forging documents. According to the teachers, because they bought the land jointly, it was less likely that they would be cheated because teachers are regarded as respected people in society. According to them, the relationship among the members of the co-operative was based on trust and interdependence. In this co-operative they paid instalments to build their savings and eventually bought a piece of land. Such collaboration affected the professional behaviours among the teachers. They claimed that they had more frequent communication among the colleagues who are the co-operative members than with other teachers in and out of the school. The teachers who were involved in the cooperative endeavour were observed to sit next to each other in the staffroom and they talk with each other more than with other colleagues. They communicate with each other inside and outside of the school more frequently than with other colleagues. However, no conflict was observed between this group (cooperative members) and other teachers. Thus, the CoP of the teachers in this school was wider and not restricted within the professional boundary.

In summary, the teachers seemed to perceive any joint activity with their colleagues as collaboration: discussing, evaluating, socialising, ‘gossiping’, even joint financial ventures. They thought that they were attached to each other through a social cohesion that enabled them to help colleagues overcome both professional and personal problems. All these ways of helping were regarded as collaboration by them. These collaborative practices, according to them, extended beyond the professional boundary and involved a range of

social and personal engagements. As the teachers were involved in some interventions that promoted peer learning (e.g. EIA) they were aware of the formal definition of collaboration or peer support (M. S. Rahman, 2019), yet they considered both social and professional engagements with their colleagues as collaboration. They thought that because they did not have time for formal collaborations like observing colleagues' lessons and reflecting on each-others' practice, informal professional and social engagements provide them with alternative opportunities for sharing knowledge and experiences. The teachers believed such interactions (informal, professional and social) were important for their development. However, to what extent such informal collaboration could impact on their professional learning was a question. It was found that within their informal collaboration, professional aspects were scarce and even when they were involved in professional collaboration, those seemed have little impact on their practice. These are to be discussed in the Nature of Collaboration section (Section 6.3).

6.2.2 Perceived importance of collaboration

This section illustrates in which way the teachers felt collaboration was important. The analysis of the data suggests that teachers found collaboration helpful in solving professional problems, changing teaching practice, reducing burnout and developing socially. However, the analysis also reveals a difference between the perception of the teachers and the headteacher. While teachers saw collaboration as a means to their professional and social development, the headteacher emphasised the value of collaboration in terms of school improvement and maintaining the collegial relationship among the teachers. By professional development, they meant being skilled to make teaching more effective while social development was explained as being respected and secure in the society. Teachers mentioned that they stood beside each other in their day-to-day life, be it to overcome a social problem (e.g. a teacher was accused by a guardian of beating his child in class, and the colleagues were observed to support the teacher.) or an

economic one. By school improvement, the head teacher meant maintaining and improving the overall school environment (e.g. performing all administrative work on time, keeping the physical environment clean etc., no reference of pedagogy or student learning was provided), and he referred to good and supportive relationship among teachers as collegial relationship.

The teachers' perceived the importance of collaboration, which I have categorised into four ways. First, teachers often indicated that through collaborative discussions and joint working, they managed to overcome teaching and assessment problems. Almost all the teachers (four), who were formally interviewed, said that collaboration is important because whenever there was a problem related to teaching or assessment, they discussed it with colleagues and the headteacher, and that helped them to overcome the difficulties or a dilemma (Dunne et al., 2000). A male said:

... in a challenging situation, we often decide what to do through collaborative discussions. For example, when there are special-needs children in a classroom, we feel concern about their learning. I often feel a dilemma, whether my teaching is helping them to learn. I discuss with our colleagues and together try to find out how we can learn that they are learning, and I feel those joint discussions are useful. (Interview)

Teachers assumed that joint discussions and experience sharing produce more effective knowledge. Another male teacher said:

I think, two heads are better than one, if we combine the knowledge of two, our area of knowledge enhances... our experience increases... (Interview)

Another teacher mentioned the role of mentoring as a form of collaboration. She said that she often went to teachers who are older and have more experience to boost her confidence. He said:

A couple of days ago I was teaching math.... I asked a mam (a female teacher) if the lesson delivery techniques were right... I chose the methods but double checked with her... she assured... (Follow up interview)

Secondly, teachers believed that discussions (which are considered as collaboration) help to change their teaching practices. A female teacher spoke about the effect of a discussion on one of her colleagues:

Yesterday, Benu came to me to consult about a science lesson on diurnal motion. I suggested her to demonstrate the process by a candle and a globe (Balloon). I think after our discussion she tried this in a new way. Before, she probably would use the lecture method. I think she improved. (Follow up interview)

She also thought that sharing such an experience helped her to become more confident about her own teaching. When someone accepted her suggestions and conducted classes using her ideas, she felt satisfied and confident about her innovative techniques.

Thirdly, teachers thought that collaborative practice eased their workload. As indicated in Section 2.5, in this school, classes were divided into two sections and two teachers shared the responsibilities of teaching a subject in different sections (in different rooms). This might sound like a division of labour, but the teachers considered it to be collaborative because for this they had to plan and work jointly to ensure the timing and the quality of lessons in each section of the classroom. Through such collaborative responsibility sharing, they managed their workload and class sizes. Moreover, they could share responsibilities for preparing lessons and resources. A female teacher explained:

planning lessons becomes easy as we do it together for two different sections. In addition to that, we solve the question papers of exams and discuss marking scheme together... I do not need to read the whole textbook to find an answer to a question... we share the question items.... (Interview)

Finally, teachers thought that they developed socially and economically through collaborating with colleagues. They said that when they were invited to any social event,

they went together. This collective visiting strengthened their social status: in a gathering, they could present themselves as a distinctive and respectable team and community. When the headteacher described the importance of collaboration, he stressed school management, teamwork, solidarity and professional development. For him, the collaboration of teachers helped to manage the overall work of the school. He said:

There are endless works in the school, without helping each other and the sincerity of the colleagues it is impossible for a headteacher to perform all. (Interview)

Here he indicated that through collaborative approaches teachers helped the school's operations and functioning. Managing the school's overall work was his primary concern and he believes that the collaborative approach of teachers helps him to manage the school effectively. The overall work of the school included wider social activities along with teaching-learning tasks. The head teacher and the school were not just responsible for teaching and learning but from the government's position, schools (and therefore teachers) were expected to fulfil a wider social remit, such as helping administer elections or medical programmes.

He said:

... we have a yearly plan.... Firstly, to distribute the textbooks among the students at the beginning of the year.... Organising different co-curricular activities.... Performing assignment from the other departments such as health department, election commission.... I understand, these works interrupt the actual teaching activities... but we must do these... without collaborative attitude, it is not possible to accomplish all these.... (Interview)

Nevertheless, he also emphasised that collaboration was important for teachers' professional development and students' learning. According to him, through collaborative activities, the teachers had the opportunity to reflect on their practice and improve their understandings of teaching. In his response, students' learning was more emphasised than

teachers' learning through collaboration. He went on:

I think the discussion about classroom activities is most important. The profession we are in, is to direct a child appropriately, especially, when I discuss things with the teachers, I emphasise the teaching-learning matter more than anything.... I discuss how the classroom activities are going, how children are learning... those discussion I do more. (Interview)

He also mentioned that the collaborative attitudes of the teachers made their teamwork more effective. He said that the classroom teaching and other responsibilities (i.e. administrative and non-teaching work) were distributed amongst the teachers. The headteacher indicated this by giving an example:

The works are distributed amongst the teachers. One teacher is responsible for reporting the average attendance each month. He cannot do it himself, but others need to support him... they bring their register to him and help him calculating the average attendance... (Interview)

According to him, such distributed work made the teachers share the overall responsibility for the school and the school management therefore becomes more effective.

In summary, the teachers thought that collaboration was important for them because through collaboration, they could overcome professional and personal problems. Joint endeavours were helpful for making innovative ideas as they said, two heads are better than one. The headteacher believed that teachers' sense of shared responsibility made the administrative works of the school easier and that helped the success of the school to grow.

6.2.3 Perceptions about the processes of collaboration: why, with whom, and where and when

This section considers how the teachers understood the processes of collaboration: what did they think they collaborate on and how did they think they go about this: why, with whom, and where and when.

Why: Teachers said that they were prompted to collaborate by any new and challenging situation, by the headteacher's leadership and by the way the school works. This reflects findings from previous studies (e.g. Cohen et al, 1979 and Little, 1982).

Firstly, the teachers indicated whenever the situation in the school deviated from the regular day-to-day activity, they tended to seek support from colleagues. When teachers were asked to give an example of collaborative tasks they had done in the last couple of days, they came up with examples related to incidences that were not regular in the school. Most of the examples were about preparing test papers for an upcoming mock exam. Although this was a regular activity each year, it was not a day-to-day practice. In one week, all the teachers mentioned activities related to the mock test for grade five students. The examples they provided were about developing and preparing question papers and making exam arrangements. Arranging that mock exam along with other regular activities seemed to be challenging to the teachers and such challenges made the teachers work more jointly. My field notes indicated that in the mock-exam-preparation week, teachers were working in several teams for accomplishing the tasks for exam arrangements.

Secondly, the leadership style of the headteacher was also mentioned as an important factor that influenced collaborative work by both headteacher and teachers. The headteacher said:

...I often maintain strategies to promote collaboration and I think this is important. Firstly, I am always open to the teachers. You see, I do not have a separate room... whatever discussion we have, we do it together... moreover, I consider myself as their colleague, not a boss, and I act like that.... secondly, I treat all the teachers in similar ways so that they do not feel that I have any weakness to any specific teacher.... (Interview)

The teachers confirmed the headteacher's claim. All the teachers interviewed thought that the headteacher was supportive of them working jointly and closely. One of the male

teachers said:

This headteacher always encourages us to share our experience with our colleagues. We have the opportunity to come out of the class and discuss with a colleague...(Follow up interview)

However, the headteacher was not observed to set any change-agenda or action-orientated collaborative approach for the school during the data collection period. He did not provide any structure/guidance/framework to support collaboration within the school and did little to promote externally-promoted scaffolding, such as lesson study.

Nevertheless, the provision of sharing lessons in two different sections (which was a decision from the management) of the same classroom by two teachers was considered to be highly conducive for teachers' collaboration. To keep the pace and quality of teaching similar in two sections, teachers discussed with the colleagues who share their class. A female teacher said,

We must work together because we conduct the same lesson in two sections....we (she and the teacher she shares class with) plan the lesson together... we may have a difference in presentation but we try to minimise the impact by working together before going to the class... we do it very often... (Interview)

In contrast, teachers indicated that some factors can restrict their collaboration. For instance, they believed that the prescriptive nature of the TPD trainings provided by the government institutes and a Teacher Guide (TG) supplied by the central government agency reduced the necessity of their collaborative discussions related to teaching. This was because the trainings and guide had helped them develop a shared understanding about teaching techniques. Consequently, they perceived less of a need to collaborate as they all saw things in a similar way. They said that the training and the teacher guide had instructed them to follow specific techniques.

One teacher (male) said:

We do not do much discussion about (teaching) technique because we all have same training... we all have C-in-Ed (Certificate in Education)... we have sub-cluster and subject-based training... so we have pretty much same understanding about techniques... we do in that way... but still each teacher have their own technique and method.. we try to blend the training and our own method and apply those in classrooms... (Follow up interview)

Moreover, they indicated that the nature of government monitoring also restricted their agency for change in their teaching practice. They reported that the local education officer (Assistant Upazila Education Officer AUEO) often stressed the need to follow the TG. This made them less interested in bringing innovation into their teaching or to discuss innovations with their colleagues. Teachers usually did not want to upset the inspectors. A male teacher said:

We used to discuss more before... but now we are provided with the TG... we are instructed to follow that... we can prepare lesson plan using that.... we discuss less now.... (Follow up interview)

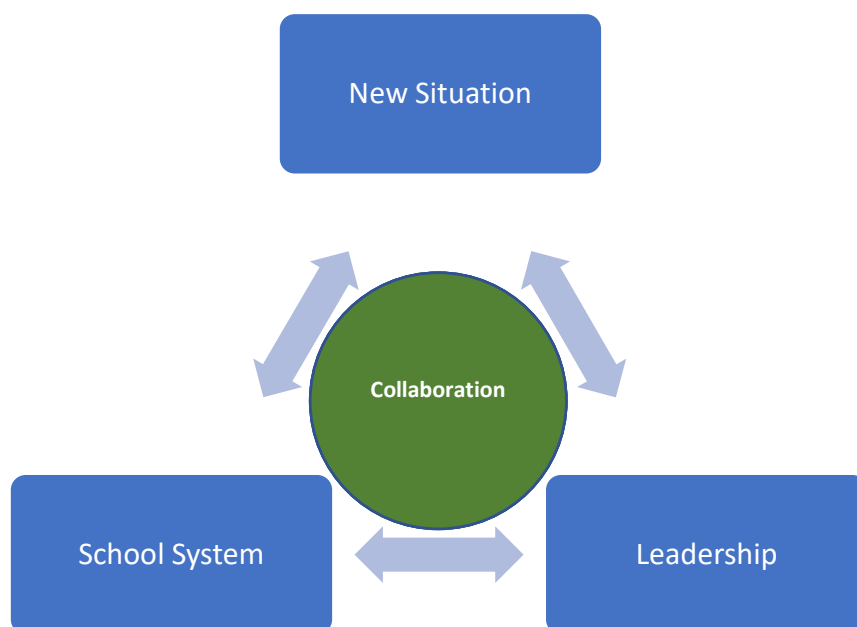


Figure 11: Perceived factors that influence teachers' collaboration

The diagram above shows the factors believed by the teachers to influence the way they collaborate in their day-to-day work. According to them, the school regulations (e.g. provision of class sharing, instructions from local authority and various training), any new situation (e.g. any ad-hoc work instructed by local education authority) and the role of the headteacher (teachers believe that the current headteacher is supportive to collaborative works) are the factors that influence the way they work jointly with their colleagues.

Who: Teachers said that they did most of their joint working with the colleague they shared the classroom with. Nevertheless, teachers perceived a number of factors that determined their choice of colleagues for collaboration: mutual understanding, cordiality, seating arrangements, the gap of experiences, social relationship and personality traits. However, the data indicated that additional factors might play a role in this aspect, for instance, the specific skill of a teacher (e.g. with technology).

Teachers indicated that they tended to collaborate with colleagues from whom they thought they would benefit professionally and personally and with whom they had good understandings. This point is implied in this response from a male teacher:

*I think, specific colleagues can help me for solving specific problems
(educational)... I jointly work with them who I think can answer my question...
understand me... I have a good mutual understanding with... (Follow up interview)*

The physical sitting arrangement for the teachers in the staffroom was also mentioned as an indicator that determines whom teachers tend to talk or work with more. A female teacher indicated:

*With the person I sit next to I talk a lot about our social and family life... moreover,
that teacher is the same age of mine... so, we have a more friendly chat between
us... (Follow up interview)*

When asked whether there was anyone with whom the teachers did not feel comfortable to discuss or work jointly, most of them mentioned teachers who have more years of teaching

experience. Respect for elderly people is a strict cultural norm in Bangladesh, especially in rural areas. This respect often turns into fear. Professional discussions with a superior (by age or social status) may involve debate and disagreement, any debate with a superior person may cause the younger or less experienced person to become insecure. Hence, people tend to evade discussion with a superior in rural Bangladesh, and this can cause a communication gap between people in different levels of a hierarchy. A female teacher mentioned a senior teacher's name when asked with whom she generally has the least discussion or joint work. When she was asked the reason she said:

Because he is quite senior... I would first [go] to other colleagues who are of my similar age and experience... (Follow up interview)

The same senior teacher's name was mentioned by the majority of the teachers interviewed, indicating that they do the least amount of joint working with him. Even the teachers who share classes with this senior teacher indicated that they do minimal joint working or discussion with him. This senior teacher was a district leader of the Cub-Scouts. Moreover, he was in communication with high officials (e.g. district controller and district education officer) in the district and he was observed spending significant amount of time outside of the school to attend them. For this, other teachers had to cover his classes. This situation was also a cause of the detachment of the most senior teacher from other colleagues.

Most of the teachers who were interviewed indicated that they talk and work jointly the least with the teacher having longest teaching experience in this school. Although most of the teachers mentioned deference due to of length of experience as the reason, the field notes indicated that the senior teacher's social status and lack of availability in the school were also reasons that influence other teachers' attitudes to collaborating with him. In addition, some of the younger teachers were taught by this teacher when they were primary school students. One of them (male) said:

I talk least with Shariful sir... because when I was a student in this school, he was my teacher (smile).... (Follow up interview)

A female teacher mentioned a gender aspect that restricts her collaboration with this senior teacher. She was married in the locality where this senior teacher lived. In rural Bangladesh, a married woman has limited interactions with male members of the community, especially when there is the possibility of bargaining or debating (Sultana, 2009). Hence, the female teacher did not talk frequently to the most experienced teacher, although she was observed to be engaged in joint working with other male teachers in the school when necessary. She said:

I am a bride of the locality of Shariful sir. So, it is less likely that I talk to him... (Follow up interview)

Moreover, the personal traits of the most experienced and senior teacher (male) also account for the lack of collaboration with other teachers. The particular senior teacher thought that younger teachers who speak more will tend to do less work. He said:

We have very limited time but many classes to conduct... I believe in work... my responsibility is to teach here... not gossiping... so I do not talk much... (Follow up interview)

When: Teachers in this study had limited time to spare outside of classroom teaching. The school had twelve teachers, including the headteacher, and nine classrooms to cover. In each class period, nine teachers were engaged in classroom teaching and three were meant to be out of the classroom. The time when a teacher is out of the classroom is called ‘stopgap’. The headteacher believed that the stopgap was a good time for joint work and sharing experience. However, teacher absence is very common in Bangladeshi schools and this school was not an exception. Nine days in a month, during the fieldwork, at least one teacher was absent in the school either for a personal matter or a professional need. The maximum number of teachers absent in a single day was three, altogether fourteen teacher days were lost in that month. Teachers were often in off due to sickness. Some teachers

had to go out of school for administrative purposes, such as attending meetings at the local education office. Eventually, during the stopgap times often there were not enough teachers (fewer than two) to work or talk together. Nevertheless, occasionally, teachers assigned tasks in the classroom and would then meet in the staffroom to complete paperwork or to rest. In such situations, they were found working or talking together. However, teachers said that there were three specific times of each working day which allowed them to work with other teachers in the school: first, before starting the class in the morning; secondly, during lunch break and finally, between the last class and closing time. Of these three times, teachers believed that lunchtime was the most effective time for sharing experience and discussing things. This was probably because lunchtime was the longest break time the teachers had and they usually all had lunch together in the staffroom. In that time their discussion included all social, family and professional matters.

6.3 Nature of collaboration

According to the data, broadly two types of collaborative activity are evident. The first type is planned, organised, time-bound and specific goal-oriented. Existing literature often labelled such activities as formal collaboration. However, as discussed in Chapter 3, the definition of formal collaboration in the literature is ambiguous, and no single accepted definition of '*formal*' was found. Moreover, the interactions observed in this study have made it difficult to separate between formal and informal because many informal activities were pre-planned and goal-oriented while some of the ad-hoc activities were observed to have a formal structure. Thus, teachers' collaborations observed in this study are broadly divided into planned and unplanned collaboration. Both of these types had several sub-categories which are described in the sections below.

6.3.1 Planned collaboration

Planned collaborations are referred to as pre-planned, goal-oriented activities in this section. In these activities, teams are formed purposefully, tasks are distributed, and a timeline is defined. These are usually driven by top-down initiatives (Forte & Flores, 2014) mainly from the headteacher. The organised collaborative activities are categorised into four areas.

- a. Co-teaching
- b. Professional development oriented
- c. Routine school management tasks
- d. Ad-hoc basis teaming

Co-teaching

The most significant collaboration in relation to teaching-learning observed in this school was co-teaching. Students of a class (year or grade) were divided into two different sections to reduce the number of students per teacher and two teachers teach the same content in two separate rooms at the same time. The two teachers who share lessons in two different sections often worked together to maintain the pace and quality of teaching in both sections. Teachers indicated that the teaching-related collaboration happened mostly between the pair of teachers who share the same lessons in different sections.

The teachers in this school confirmed that they were benefitted by the lesson sharing approach. One teacher (female) said:

As we conduct the same lesson in different sections, we must make those aligned. We, of course, have a difference in presentation in the classroom but the discussion before the class... the joint lesson plan... helped to ensure a similar standard of teaching for all the students, even though they are in different sections... it helps

me to change my teaching and to develop new teaching ideas... I can learn from my colleague...(Interview)

Teachers were often observed working together for lesson planning, preparing test items and marking exam papers with their partner with whom they share lessons with. However, the joint lesson plan process seemed to involve one teacher telling what to do and another performing that. For instance, in the following conversation during a joint lesson plan Pervin was instructing Benu what they should do, and Benu was writing that down.

Titly Pervin (F): ... Today we will teach dialogue... 'What are they doing?' ...

Benu Akter (F): You are really good in English...

Titly Pervin (F): You need to practice... we can use lots of techniques such as Bingo game, hang man game... madam game.. there are so many games... we can teach words through these games...

Benu Akter (F): Yes, these games are good... I also learnt a lot of words from these games... I keep forgetting these words....

Titly Pervin (F): Then they need to find the answers of the questions from the given passage...

(Staffroom conversations)

In this discussion, Benu was agreeing with what Titly was saying and taking notes. Any pedagogic input from Benu was not found. Yet, during the joint marking of test papers it seemed as if both of teachers were equally active. In one instance, between a pair of teachers one was looking for answers from a textbook, and the other was matching it with the answers written by students on the exam paper, and after a certain time they changed roles.

It was observed that the provision of sharing a lesson in different sections not only engaged the two teachers in collaboration but created a complex collaborative network among all the teachers in the school. The combination of teachers sharing lessons in different subjects

in different sections allowed them to interact with all their colleagues. For instance, Titly Pervin shared Bangla lessons in class four and the English class in grade three with Benu Akter. At the same time, Titly shared the science lesson in grade five with Shorafot Hossain, and Religious Study with Nazu Begum. This combination would change each academic year depending on teachers' availability and choice. Thus, Titly interacted with almost all her colleagues for teaching related discussion.

A shortage of teachers in the school, similar to most of the rural primary schools in Bangladesh, did not allow teachers to conduct team or co-teaching. However, the lesson sharing situation offered some of the positive aspects of team/co-teaching. In the co-teaching context, partner teachers share responsibilities for classroom instruction and student's achievement and a joint delivery of lessons (Friend, Cook, Hurley-Chamberlain, & Shamberger, 2010; Friend et al., 2015). Thus, they plan and deliver lessons, and evaluate students' achievement together. In the context of the school in this current study, teachers who shared lessons in different sections, went through all the process except the lesson delivery as the school did not have the luxury to allocate more than one teacher in a single classroom. Friend and Cook (2015) called such modes of teaching 'Parallel teaching,' which is often adopted in order to lower the teacher-student ratio. In this parallel teaching approach, teachers jointly plan the instruction but deliver it separately in two different classrooms. According to Friend and Cook, this approach increases coordination between the paired teachers to ensure similar instruction in both groups.

The provision of joint lesson planning in this school was meant to serve the purpose of maintaining similarity of content and quality of teaching in two different sections of the same grade. While teachers were often observed planning and evaluating learning jointly these events were not seen as frequently as they were supposed to be. For instance, teachers were supposed to plan lessons jointly, share experiences of their lesson and evaluate those. This should require everyday joint discussion between the paired teachers.

However, such joint activities were observed very occasionally during the data collection period. The data included audio recording of teachers' staffroom discussion. Whenever there was more than one teacher in the staffroom, the recorder was switched on. Yet, there were only five instances where it was found that teachers were discussing about lessons and those discussions involved only three pairs of teachers.

Professional development oriented

The headteacher indicated that there were provisions for collaboration for professional learning in the school. He mentioned lesson study, monthly staff meetings and meetings to identify teachers' training needs as regular collaborative professional learning activities. According to him, in these meetings, the focuses were teachers' professional development and improving teaching quality.

First, lesson study is a teacher professional development model promoted by the Japan International Cooperation Agency (JICA). The model was adopted by the Bangladeshi government in 2013 (JICA, 2017) and primary schools are instructed to undertake a session every Thursday. The headteacher said:

In lesson study, we have an opportunity to present a lesson and discuss the positive and negative side of the lesson. It creates a platform for us to share our classroom experience. (Interview)

Secondly, the monthly staff meeting was aimed at circulating any instruction from the local or central authority to teachers and sharing teachers' experiences about their day-to-day activities. Every fortnight, the headteacher attended a general meeting in the local education office where all the headteachers from the area gather. The Upazila Primary Education Officer provides a guideline to the headteachers and shares any instruction from the higher officials. The monthly staff meeting in the school has been a platform where the headteacher shares those instructions and guidelines with teachers.

Finally, according to the headteacher, teachers and the headteacher usually sit together to identify any training need of the teachers. The needs identified in that meeting are passed to the Upazila Resource Centre (URC)⁵ to address those needs in the next professional development training. This activity was encouraged by the local authority and the URC instructors but not enforced by any regulation. Teachers needed to fill in a long form that details the needs of teachers. Teachers were encouraged to fill in the form as a team by discussing it together, however, they were observed to fill it in just before the deadline and no formal discussion was observed. Nevertheless, the headteacher reported that during the needs identifying meeting they would normally have a good opportunity to discuss their teaching.

However, apart from monthly staff meetings none of the activities were observed to be operational during the field visit of two months. An excerpt from my field note stated:

'Today is the last day of the week and it is a half working day. The teachers are supposed to hold a lesson study session after the class. However, a cultural fair is going on in the nearby village. Teachers are planning to pay a visit to the fair together. Today is a good day for them to visit the event as it is a half day.'

(Fieldnote)

The lesson study session did not take place. Thursdays were the half-day for teachers, and, during the data collection period, teachers were observed to rush out of the school as soon as the last class was dismissed. The headteacher acknowledged the issue. He said that due to the shortage of time, they could not carry out the activity regularly. Whilst teachers and the head teacher spoke about following the policy of conducting lesson study, it was rare

⁵ Upazila/Thana Resource Centre is an institution at the Upazila/Thana level for the professional development of the primary teachers. These Centres are initiated in 1999 mainly to improving the quality of Primary Education. URCs organize subject-based Training for primary school teachers, Basic in-Service Training for freshly appointed teachers, and training for other stakeholders such as the School Management Committee (SMC).

to find evidence of any aspect of it (joint planning, the observed lesson, or the shared review) being carried out in practice. This situation is the same in almost all schools in Bangladesh, in my professional experience.

It is noteworthy that the professional development activities described above have been introduced and encouraged by external agencies, such as the central and local authority. Among these, the staff meeting took place regularly. However, staff meetings were almost entirely administrative in nature and even if items related to teaching/learning were on the agenda, they usually had such a short period of time as to be meaningless. The other two (lesson study and needs identification meeting) are required by the local authority, but the teachers have neither time, nor interest for those. For the lesson study, teachers were instructed to carry out lesson study activity on every Thursday of the week after the last class. Teachers worked six days a week and become exhausted at the last day (Thursday). They did not feel much motivation for this activity at this point and left the school as soon as the classes were completed. One teacher (male) said:

We work 6 days a week where other professionals work 5 days. Now, this lesson modelling is another burden for us... (Follow up interview)

The professional needs identification meeting was also not very attractive for the teachers. The teachers thought that through working in the classroom, they already had an idea of what they need to learn in the next training. They said that they did not need a formal meeting for the needs identification. These findings confirmed Canonigo's (2016) idea that activities which have not emerged from the context by the user (teachers) are less likely to be implemented.

Routine school management tasks

The data reveals that teams and pairs of teachers were formed by the headteacher for administrative purposes; the headteacher was observed to discuss the purpose of the team with the teachers before the activity. These teams were observed not to be hierarchically structured or led, and activities in these groups' meetings were free-flowing, for instance, brainstorming.

Teachers were observed to be engaged in a number of administrative tasks, including preparing monthly attendance reports for the local education office, preparing minutes for the monthly meeting, organising Parents' Day and organising termly tests. The headteacher reported that there were different teams for different routine tasks. For instance, a team of two teachers was responsible for preparing the monthly attendance report. While they were given the responsibility to produce the report, others help them by providing the necessary records of attendance.

Similarly, two teachers were given the responsibilities for making innovative use of technology (e.g. the laptop and projector provided as a 'multi-media classroom') and maintaining equipment. The school, like many in Bangladesh, was recently provided with a laptop and a projector to enhance students' learning using digital technology. A male and a female teacher were trained on using technology for teaching purposes and they were responsible for ensuring proper use of that equipment. However, only the male teacher was found to take care of the technology in the school. Both of the teachers in this team were of similar age and the female teacher had longer teaching experience than the male teacher. During data collection, the male teacher was observed to consult the headteacher, identify a room for installing the projector and take the initiative to hire a technician for the installation. Although no collaborative activities between the two teachers regarding the use and maintenance of the equipment were found during the field visit, other teachers were observed to seek help from the two responsible teachers when they needed to operate

the equipment. They also identified issues with the technology and sought a solution from the pair of teachers. In one discussion, the teachers were observed to consult the male teacher responsible for the technology:

Nazu Begum (F): We have a projector in only one class. The students in that class only will have the opportunity to have lessons with digital presentation...

Nahar (F): Yes, my students were saying that why they cannot have a projector in their class?

Sorafot Hossain (responsible Male for the technology): We have only one projector. We cannot move this to every room, it will be broken soon then...

Headteacher (M): Why you don't share the classroom and take each section in that class once a day?

Sorafot Hossain (M) Yes, that is a good idea, actually, we did the same last week. Once, we brought mine and Nahar's section together in the multimedia room and conducted the lesson jointly....

(Staff room conversation)

Moreover, teachers were found to discuss how to prepare an effective presentation for their lesson using a laptop. The discussion below suggests this:

Benu Akter (F): We can take our students to that class, but then what we would do? We do not know how to make a presentation. Only Sorafot and Titly got the training.

Titly Parvin (F): I can show you...

Headteacher (M): That's a good idea, we can arrange a training session in the school where Sorafot and Titly can show how to make a presentation...

(Staffroom conversations)

However, during the data collection period, no initiative for in-school training session was seen. It was observed that these discussions were not recorded or followed up therefore, not all of the decisions made jointly were implemented. Yet, this conversation shows how responsibilities were distributed among the teachers.

Similar distributions of responsibilities were evident in the day-to-day school activities. For instance, during the data collection, a committee of four teachers was organised to prepare a mock exam in the school. The exam was aimed at pre-assessing the grade five students prior to their first public examination. During the data collection period, the local education officials decided to set up exam centres in specific schools whereas in previous years students were assessed in their own schools. The school in this study was selected as an exam centre.

The four-teacher committee was responsible for ensuring the exam arrangements. The school needed to continue other classes along with the exam. Lack of enough rooms in the building and shortages of teachers made the situation complex. All the rooms were occupied by the existing students during the school period. Teachers were all engaged in classes and there were no extra teachers to invigilate the exam. The situation resulted in an active collaborative discussion amongst all the teachers, not just the headteacher and the committee members. The following is one of many conversations on this matter:

Headteacher (M): Now, how can we arrange the classes during the model test?

Shariful Islam (M): It will be very difficult. But the same situation is in all the schools where there is a centre for a model test. If we close the classes that will be a failure for us!

Headteacher (M): I was thinking if we close the nursery class during the test.... But still, we will have one room short...

Sonu Shaha (F): But did you tell the Officer (Upazila Education Office) about this (class closure)?

Headteacher (M): He said, we can do whatever we find doable...

Nazu Begum (F): We can close two classes then...

Benu Akter (F): What the parents will react....

Headteacher (M): We can leave two classes after the first period; parents would not complain much then...

Sorafot Hossain (M) Then the parents need to be informed in advance...

(Staffroom conversations)

The discussion illustrates the concern and engagement of teachers for accomplishing the task, the consequences of the situation and possible solutions. This data also illustrates spontaneous participation on the part of the teachers.

During this period of time, the committee members were observed to have regular meetings for planning the exam arrangements. The members of the committee distributed the responsibilities, such as making a grid of the seating plan, preparing stickers including the student ID numbers, gluing the stickers on seats and providing room numbers on doors.

Ad-hoc Teamwork

These types of activities have both formal and informal aspects. These are not 'formal roles or responsibilities' for regular routine tasks, but rather ad hoc responses to day-to-day challenges/tasks. In this context, however, they were formal to some extent in that the request for a teacher to work on a task comes from the headteacher and has some planned goal to be achieved within a given period of time. Teachers were encouraged to be involved voluntarily by the headteacher. In such meetings, teachers were observed to

volunteer or suggest potential resources and available colleagues. Such situational collaborations were evident in day-to-day school activities.

The following extract from my field notes exemplifies a teachers' assertion that '*we are a family... I spend more time in school than with my wife!....*'. This extract also indicates the way teachers help each other in their professional tasks on an ad-hoc basis.

It is a Thursday morning, only a few hours to go before teachers can go for their weekend after a long five-and-a-half-day week. Teachers are exhausted but happy too (as the weekend was approaching). All of a sudden the headteacher announced that tomorrow they need to organise an event on natural disaster day and, unfortunately, he will not be able to make it. He criticised the authority for imposing the task with such short notice and then requested the teachers to make the event a success voluntarily. Naturally, disappointment appeared on the face of the teachers. Surprisingly, however, a couple of teachers agreed to take the responsibility and others said that they would come to help them in a convenient time! (Fieldnote)

In another instance, on a Sunday morning, the teachers were informed that a visitor from England wanted to visit the school. She was a delegate from the Disabled Rehabilitation and Research Association (DRRA), a non-government organization working for the protection and promotion of rights of the persons with disabilities in Bangladesh (<http://drra-bd.org/>). She wanted to observe how children with additional needs were treated in the classrooms of the school. The headteacher called all the teachers and discussed what to do. Two teachers volunteered to take responsibility to re-plan a lesson that should give special consideration on the aspects of inclusivity. The two teachers sat together and discussed the plan first. They asked other teachers to give ideas. The teachers said that in regular classes they took special care of the children with additional learning needs, but they needed to make sure that this attention was visible to the visitor. They

decided that they must ask questions to the children with special needs. The teachers agreed to offer the classroom that has the multimedia facility for the visitor's observation. Other teachers also entered the room where the teachers were preparing and talked with the responsible teachers about the plan.

The data indicated that the notable characteristics of the ad-hoc collaborative activities were, voluntary, enthusiastic and self-motivated. The teachers who took responsibility of teaching for the observation visit did so without any coercion or enforcement from the headteacher. They believed they could conduct the class more effectively than other teachers of the school as they recently had training on inclusive education. Other teachers shared their ideas and helped them plan and organise. Their participation was sustained by enthusiasm and self-motivation as they see this as a matter of the reputation of their school.

Most of the planned activities that were observed involved breaking tasks into steps and distributing those among teachers. This may have resulted in more individualistic work, however, it could have also created a shared responsibility and interdependence. The latter requires strong cohesion and positive collegial relationships.

Within the data there were several instances where teachers helped each other even when a specific teacher was given specific responsibilities. Such cooperation indicates that they felt a shared responsibility for the school work even when tasks are distributed.

According to the headteacher, this collaborative work strengthened teachers' positive attitudes towards collaboration. That is, as teachers worked communally, they became more collaborative. The headteacher said:

Through such practice (joint works) they build better collegial relationship....

(Interview)

The '*collegial relationship*', although often seen as different to collaboration (Fielding, 1999), is a pre-condition of effective collaboration. The following section on 'unplanned

collaboration' shows how collegiality underpins organised and un-organised collaborative practice. Without positive collegial relationships among teachers, any collaboration could have been difficult to organise. Some of the evidence above showed that organised collaborative activities enhanced collegial relationships among the teachers. Moreover, the positive collegial relationships, along with respect and trust among colleagues, in turn, worked as a base for the planned collaboration. This is evident in the findings presented in the following sections.

6.3.2 Unplanned collaboration

Unplanned collaborations mostly consists of teachers' informal conversation and are not intentional. While many scholars define collaboration as an action-oriented phenomenon (Kelchtermans, 2006), informal talk among colleagues was also considered as a key feature of collaboration by others (Nias, 2002; Nias, Southworth, & Yeomans, 1989; Williams, Prestage, & Bedward, 2001). Nias et al. (1989) considers talk as a collaborative activity and defines collaborative talk as a mixture of chat about teachers themselves and discussion about their teaching. In this section, teachers' conversations that include discussion about teachers and teaching are considered as collaborative talk. When identifying the teachers' unplanned collaboration within the data, five themes emerged. It may be argued that these themes represent the outcome of collaborative (or collegial) discussion. Yet, the different outcomes involved different processes. For instance, while some discussions focussed on emotional aspects and strengthened solidarity, in others teachers shared their stories of students' responses in the classroom in a way that influenced the mental portraits teachers held of their students. For this reason, different types of collaborative discussions are presented under the labels of different outcomes. These themes reveal what teachers do collaboratively without a pre-plan and how they do that. The themes identified are:

- a. Creating identity and solidarity
- b. Restructuring knowledge
- c. Creating student identity
- d. Creating shared leadership
- e. Liminal spaces

a. Creating Identity and Teacher Solidarity

The data indicate that teachers' conversations with colleagues included significant emotional elements, of both a positive and negative nature. The interactions also indicate how teachers saw their power and agency. Such interactions contribute to the creation of teachers' identity, that is, the construction and re-construction of teachers' *self* (Zembylas, 2003) and to strengthening solidarity (Philip, Martinez et al. 2016). How teachers construct and reconstruct their identities can be understood by analysing the stories of their experiences (Carter, 1993).

There were different emotional elements in the teachers' conversations recorded for the purpose of this study. These emotional aspects within conversations expressed teachers' frustrations and celebrations for different activities as teachers and as social beings. The data reveal how one teacher's frustration and joy were transmitted to others and how such sharing of expressions contributed to structuring and restructuring teachers' identities and strengthened their sense of solidarity.

There was a common pattern in such discussions: someone started a discussion involving an emotional theme, others joined in spontaneously and went deeper into the matter. The table below provides a glimpse of the types and the number of emotional expressions in the data of this study. The emotional aspects of teachers' interactions were understood from the content, context and tone of dialogues in the staffroom conversations. As a native of the research context, I could understand how teachers react in a specific situation.

However, it should be noted that this is not a quantitative representation of the data. The audio recordings of the staff room conversations do not capture all the behaviours and activities of the teachers and not all the staffroom conversation data were transcribed and coded. The table counts how many times a particular code was used.

Table 13: Types and frequencies of emotional conversation

Contents of discussion	Number of codes
Team spirit (expressing proud of being in the team)	39
Solidarity with colleague	29
Criticising external agencies	19
Frustration about workload	19
Frustration about parents	13
Complaining about the lack of resources	9
Comparing our school with other schools	5
Criticizing the education system	4
Complaints about TPD provision	3

The conversations indicate that teachers identified their *self* within a macro context as teachers in general and within a micro context as a member of the particular community of teachers within their school. Within the macro context, they represented themselves as a member of the teachers' community in general. When they did so, they compared themselves with other agencies and professionals, criticised non-teaching professions, expressed frustration with their overwhelming workload and low benefits. In most of these instances, teachers expressed frustration and regret for choosing their profession because they perceived a power distance between themselves and other professionals, where they belonged to a lower class. The classification was based on social and economic power. For instance, in the following narrative, a teacher was expressing his agitation about the poor standard of living by comparing teachers' lives with those of other government employees'.

Shorafot Hossain(M): I always regret because I did not go for civil service. You see, the news about the movement of first-class government officer for raising their salary? Their salary was raised just a couple years ago and its again now!

Ashraf Rahman (M): Do we do any less work than them?

Nazu Begum (F): Less work! They work in an air-conditioned room, but you see our classrooms! Hundreds of students, only 2 fans and most of the time there is no electricity.

Shorafot Hossain(M): They come to visit our schools, we entertain them, and they get additional payment from the government!

(Staffroom conversations)

In this narrative, the ‘we’ teachers used, represented the wider community of teachers and the conversation indicate that they see themselves as a community disregarded by the system. The expression of teachers in this conversation also indicated that the teachers perceived themselves as an oppressed class within the government system. They expressed that, as practitioners ‘at the chalk face’, they had better understandings of the teaching context than the inspectors from the local education office and Primary Teacher Training Institute (PTI). Yet, the political structure favours the education officials with a better quality of life such as an air-conditioned office. There is much evidence in the data to show that teachers saw themselves as significant contributors to society, but felt they were not acknowledged by the government. In such conversations, they expressed themselves as professionals who were disregarded in spite of their unique and specialised job. Such emotional aspects and their expressions are considered to contribute to teachers’ solidarity as the notion of teachers’ solidarity often emerges from their discussion of humiliation (e.g. racial discrimination) (Philip, Martinez, Lopez, & Garcia, 2016). Philip et al. (2016) suggests that the sense of humiliation emerges from discrimination. In the context of this

study teachers' sense of being disregarded comes from the differences of facilities between themselves and the other government officials in the education system such as education officer and PTI instructors.

Similarly types of frustrations were also found when they criticized the education system and demand teacher representation in the central administrative system.

Shariful Islam (M): The problem with this department is, the officers come from either secondary education sector or from administrations, and they do not understand the situation of a primary teacher. They even are not used to with signing an attendance sheet. Let me give you an example, who live in Saudi Arabia, he will think that there is no rain in the rainy season, is not it? Again, who lives in our place, he will think that everywhere is raining now. So, who have experience of primary teaching only he will understand the situation, none else.

Ashraf Rahman (M): So, whatever they do to oppress us, they do it intentionally... If there is a provision of departmental promotion....

(Staffroom conversations)

In primary teaching in Bangladesh, there is no career pathway into central administration. A teacher can be promoted up to a headteacher position, but there is no provision for promotion to local and central education offices. The teachers think that such a provision would have encouraged them to perform better in the classroom. Similar frustrations are identified when the teachers complain about the lack of resources and the prescriptive and imposed pedagogy (e.g. having to use the teacher's guide). Through expressing such frustrations, teachers show sympathy to all the primary teachers across the country. In these discourses, teachers present themselves as *teachers* in general, not a teacher in a specific school. In such discussions, teachers are less critical to their practices (Philip et. al 2016).

On the other hand, teachers saw their identity at the micro level as a member of the community in the school. They created or restructured such an identity by comparing themselves with teachers from neighbouring schools (often criticising their teaching and other professional practices), criticising parents, complaining about their school for having a lack of resources, and having to use guidebooks. In the narratives involving such aspects, teachers tended to see themselves as better practitioners than teachers of other schools and became critical of the teaching profession as a whole. For instance, in the following conversation, teachers expressed satisfaction with their school work environment and compare this with neighbouring schools. They also expressed a belief that their work environment in this school is much better than others and they collectively made a contribution to this.

Shorafot Hossain(M): If you get transferred to another school, you will miss this environment. In this school, there is a good work environment. Look, Mariam Apa (Sister Mariam) left this school. In her current school, she says, they never let the Sub-Cluster training go beyond 2pm. She says, 'as soon as we finish our lunch, we take our honorarium and go home'. But this Mariam Apa used to discuss every bit of point when she was in this school.

Sonu Shaha (F): I met her a few days back, she said that she is not happy in her current school.

Shorafot Hossain(M): Whoever left this school are not happy.

Sonu Shaha (F): But Firoz is happy.

Shorafot Hossain(M): Because he is lazy, and he loves the place where he can skip work. But I think in this school we work so harmoniously, and it gives me a feeling of peace.

(Staffroom conversations)

In this conversation, teachers saw themselves as members of a teachers' community, particularly within their own school. They took pride in their school and the way they work and claim that they were more honest and hardworking than the teachers in neighbouring schools. In this narrative, they showed solidarity with their colleagues in their school while criticising teachers' in a general sense. This indicated a satisfaction among the teachers which seemed strengthened through joint discussions. Such an attitude may have contributed to the improvement of their practice by increasing job satisfaction (Ololube, 2006). This conversation showed that the teachers considered themselves as accountable professionals and felt satisfied and proud of that. Similarly, in the following conversation, they took pride in their honesty: they started a discussion by expressing grievances about not getting funds for improving the infrastructure of the school and ended it by showing satisfaction at not engaging in corruption.

Sariful Islam (M): As teachers, we have some power, we could have used our influence to secure the fund for improving the infrastructure of this school. See how crowded the classes are! Some additional room can ease the overcrowded situation.

Rakiba Begum (F): Last time lots of school got the allocation of the money.

Shorafor Hossain (M): Hazrat Ali sir collected money from the locality and bribed that money to secure their fund.

Sariful Islam (M): But this is an ill way. We are proud that we manage the large class with extra labour rather going through any corruption.

(Staffroom conversations)

In this conversation the use of the words 'power' and 'proud' reflect the positive feelings of the teachers which they expressed as a member of the CoP within this school. The

words ‘*manage*’ and ‘*extra labour*’ indicate how the pride of being honest motivated them to manage the day-to-day duties within the limited resources. Such commitment is, perhaps, a driver of ad-hoc collaboration (please see section 6.3.1) that they spontaneously perform in urgent situation for the benefit of the school.

The findings in this section, in general, reflect both macro and micro levels of solidarity among the teachers. They express solidarity in general when they compare the nature of their professionalism to that of other government and non-government agency staff. They also compare their activities and their school with other schools and teachers, expressing micro level solidarity and a sense of being more professional than peers elsewhere. Often, teachers express opposite identities at macro and micro levels: macro level dissatisfaction, frustration and humiliation and micro level pride, professionalism and satisfaction. Yet, both identities contribute to solidarity.

b. Restructuring knowledge

As members of a CoP, teachers negotiate meaning through engagement in practices which are not just official activities (McCormick, Fox, Carmichael, & Procter, 2010). Teachers participate in numerous social and domestic discussions and activities throughout the school hours and after school hours outside of the school. These discussions are often related to strengthening of teachers’ existing concepts, reliable evidence of the benefits and viability of new approaches. Such discussions help teachers to restructure their knowledge (Desforges, 1995).

Strengthening existing concepts: The data indicate that teachers shared their day-to-day experiences and concerns with their colleagues, which involved professional and personal stories that seem to be restructuring teachers’ understanding, building awareness of a new issue or strengthening existing concepts. Teachers reported that they continuously learn from colleagues. A male teacher provided of an example of such learning.

...in Math class, I was teaching addition, I used to teach by using the plus (+) symbol. But, it has a language. Such as 7 and 5 makes what? But what I used to say was 7 plus 5, I did not know that 'and' means plus. I learnt it from my colleague in school. I never know before. (Follow up interview)

Such findings were evident in an earlier study in the Bangladeshi context. Croft et al. (2017) suggested that the definition and acquisition of knowledge in the Bangladeshi context was seen as a collaborative process and the knowledge that was shared by more experienced teachers was highly valued. Not only by such mentoring process but also through day-to-day experience sharing, teachers seemed to strengthen their existing knowledge. A notable aspect in the experience sharing activities was that in most of the cases these involve storytelling. When a teacher shares a story, others usually do not disagree or debate, rather they curiously listen and agree with the storyline, and often contribute to the conversation with their own similar experiences and ideas. The spontaneous engagements in someone's story seemed help them strengthening existing understanding of social and professional matters.

For instance, in the following conversation, a teacher tells a story about her experience of a lesson where she used models for teaching a poem. Two teachers joined the conversation, one listened with inquisitiveness and other added her understandings of using models in a class.

Benu Akter (F): I used [dummy of] palanquin⁶, and horse [to role play a dramatic poem] in my class today [laugh]...

Shokhi Mirza (F): Did you bring a horse! [very surprised]

⁶ A covered litter for one passenger, consisting of a large box carried on two horizontal poles by four or six bearers. This is usually seen in the Indian subcontinent and is used by members of upper-class society. In a primary textbook, there is a famous poem by Tagore that depicts an imaginary heroism of a little boy who saved his mom, who was travelling in a Palanquin, from pirates. In this conversation, the teacher was sharing her story of conducting a lesson on this poem using models of Palanquin and horse.

Benu Akter (F): Oh yes, I brought palanquin, horse... what a class it was!

Everyone (student) said, I want to go, I want to go [in the front of the classroom for performing role play]

Parvin Akter (F): It is obvious... they are children... they will make chaos...

Benu Akter (F): everyone wanted to come first... Oh.... I make them play a role of the character of 'Beer Purush' [The Hero] poem... with the palanquin and horses... they enjoyed a lot...

(Staffroom conversations)

In this conversation, everyone paid attention as Benu Akter shared her experience of using a model (palanquin) in her class and the effect of that activity. Using models and other teaching aids was not something very new in the school. Many teaching aids (posters and models) were found in the staffroom which are meant to be used in the classroom.

However, Benu's story attracted a curious attention of the colleagues around her. Shokhi, who was the youngest teacher in the school, immediately wanted to explore further about Benu's teaching using models. Whereas, Titly found Benu's story familiar to her and she added that using such models in large classroom may make the lesson chaotic. Through this conversation, while Titly had an opportunity to remind herself of the effect of using models in a class, Shokhi became aware of that effect. Another important aspect of the discussion was, it triggered an exploratory dialogue (Littleton & Mercer, 2013). In such conversations, everyone listens actively, ask questions, and people build on what has been said by sharing relevant information. Such conversations attracted good attention from teachers and had the potential for strengthening existing understanding of teaching. However, these conversations that involved pedagogical aspects did not continue long. The focus of the first discussion (about using model) shifted to personal talk in a few minutes when another teacher started talking about a family matter. Yet, such conversations seem a significant way of collaboration because teachers seemed to be paying attention to the

stories spontaneously and engaged in the associated collaborative talk/discussion (Williams et al., 2001). Data indicate that teachers engaged in discussions that were initiated with a story spontaneously and actively. Through telling and listening to stories, the teachers seem to be comparing their own and colleagues' practices. Nevertheless, many of the conversations involved just raising issues. In such conversations teachers were often observed to either just listen to the story, nodding or acknowledging the issues by sharing similar experiences of their own. In a few instances, they continued the discussion to find the root of the problem and possible solutions. For example, one day, after coming back from a class, a teacher started talking about his classroom experiences and pointed to the omnipresent issue of the overcrowded classroom and unmanageable chaos.

Shariful Islam (M): You see... in most of our classes, three students squeeze in one bench. Altogether 80-83 students, I just cannot deliver a quality lesson as I expect... children scream too much... I can't help calming them... even by using a loud speaker... (sigh)

(Staffroom conversations)

Raising such an issue triggered similar experience sharing by other teachers. Another teacher added:

Benu Akter (F): Today they were not listening to me at all too... whatever I say, they just laughed.... I was doing mathematics... I tried my best to make them understand... if they do not try to understand, what can I do?... I tried... the rest is upon them.... I asked them if they were taking note... they said that they are... but when I see their notebooks, they were empty....

(Staffroom conversations)

These interactions fall into the 'Cumulative talk' category (Littleton & Mercer, 2013) when participants of the discussion simply accept and agree with what other people say in an uncritical way, without evaluating what is said. Yet, they seemed to restore their

understanding of overcrowded class through such exchanges.

Producing reliable evidence and discussing the benefits and viability of a new approach

Teachers often shared their experiences that seemed to provide other teachers with reliable evidence of some matters and discussed viability of a new approach to teaching and non-teaching activities. Such discussions may have helped teachers to reconstruct their knowledge about the world. For instance, in the conversation below a teacher shared her experience as evidence of a successful class to suggest to her colleague how to plan a lesson.

Shorafot Hossain (M): I am going to conduct a lesson on precaution and first aid.

Titly Pervin (F): Oh, you can include many activities in this lesson. I did it and it was good. You can role play as a wounded person and show them how to use first aid.... But do not cover the whole content at a time... that would be too much...

first I explained what to do in case of snake bite... I show them where to tie a string when someone is bitten by a snake... Then asked them to do the same in groups... that was great....

(Staffroom conversations)

In this conversation, Titly used her experience as evidence that conducting the lesson in such way as she did was successful and thus the method was reliable. She also used 'I did it and it was good/.../...that was great' to ensure Shorafot that the method was viable.

There were other instances in the data that show that teachers provide examples of teaching and non-teaching matters for colleagues to follow.

In another instance a teacher shared his memory from his PTI training days to advise the youngest teacher (who is going to enrol in PTI training next year) about the social programme within the training and the staff of PTI.

Shorafot Hossain(M): We had a very good picnic in the PTI. I was responsible for the food. I arranged something extra added to the menu that we decided early. Kudrat sir (instructor) praised me a lot [Laugh]. In PTI, Kudrat sir has a good hold over the administration. I suggest you (pointing to Shokhi Mirza- a junior teacher to start PTI training shortly) to make a good rapport with him.

(Staffroom conversations)

In this extract, Sorafot Hossain shared his memory from his PTI days and advised Shokhi (the youngest teacher) to get in touch with Kudrat who is influential within the PTI. He indicated that Shokhi could get support in any administrative matter during the PTI training because he had support from Kudrat. Through his talk, Shorafot ensured Shokhi that Kudrat was a reliable person to communicate with for any support.

Not only did they talk and share experience, teachers also actively worked together to look for hard evidence to remove any confusion. For instance, once two teachers were confused about the answer of a question that appeared in the science exam. They were involved in the following conversation.

Benu Akter (F):[holding a paper in front of her] plants are absorbing sunlight and growing... what is the appropriate transformation of energy here? Light to Chemical energy, chemical energy to heat, chemical energy to light or light to heat?

Ashraf Rahman (M): Light or chemical energy.... Then it is....

Ashraf Rahman (M): No, it should be light to heat...

Benu Akter (F): Are you sure?

(Staffroom conversations)

The discussion continued for a while and they could not reach a decision. So, they went to the headteacher for an opinion. The headteacher was not sure either. However, he guessed that Ashraf Rahman was correct. In this instance, Benu Akter compromised and accepted

Ashraf's point. However, she took the discussion to ask another teacher for further opinion. The teacher brought a science textbook and found the chapter where the answer was. Although this discussion was on a (subject) knowledge level (aimed at seeking accurate information), it reflects aspects of inquiry-based learning activity which has a significant effect on teachers' professional development (Butler & Schnellert, 2012). However, this type of fact checking inquiry that involves teaching was uncommon in the day-to-day practice of the teachers in this study. Rather, most of the enquiries were related to non-professional matters such as social and religious issues. Unlike other parts of Bangladesh, the village where the school is situated has a higher proportion of Hindu people who have a number of festivals throughout the year. Some of the festivals are quite exuberant and teachers are usually invited to those festivals regardless of their religious identity. These festivals have an influence on what teachers talk about with their colleagues in and out of the school. For instance, teachers often engaged in conversations about religious history which sometimes involved disagreements, discussion, fact checking and consensus.

Nazu Begum (F): Thursday is 'Shyama Puja' [a Hindu festival that offers teachers a day off] is not it?

Parvin Akter (F): 'Kali Puja', we call it 'Shyama Kali'....

Head teacher (M)r: In this festival you make 'Semai' [sort of dessert], don't you?

Parvin Akter (F): Shyama, not Semai...

Rakiba Parvin (F): Krishna and Shyama are Kali, aren't they?

Titly Parvin (F): Krisna (Hindu lord) was blue...

Rakiba Parvin (F): Shama is Krisna and Shyam is Kali....

Ashraf Rahman (M): Krisna was blue but later, he was black before...

Sorafot Hossain (M): Shyam Kalia Prano Bondhu Re... [a popular song], did you not hear that?

... .. (Staffroom conversations)

Thus, this became a matter of confusion among the Muslim teachers. They were arguing about the history and appearance of Hindu lords. Some of them were referring to popular proverbs and texts from literature to establish their opinion while others were making assumptions. During the conversation, the Hindu female teacher was not engaged, but was sitting on the other end of the room. Eventually the debating Muslim teachers went to her to solve the debate and were convinced by her explanations.

In brief, teachers were observed to share experiences and work jointly (e.g. consulting the headteacher and textbook jointly to remove confusion of a science topic) that created an environment and situation which were conducive to strengthening their existing knowledge, creating reliable evidence of effective teaching and viable approaches to teaching and non-teaching activities. Strengthening existing understandings of the social world, producing reliable evidence of effective and viable approaches are requirements for constructing and reconstructing teachers knowledge (Desforges, 1995).

c. Creating student identity

According to Gee (2000) identity can be defined as the type of person an individual is recognised as in a given context. Teachers' identity is often referred to as how teachers create a sense of *self*. Teachers as professionals who deal with children and young people not only create the image of self, but also continuously build what I will call 'portraits' of students through talking with other teachers and through exam marking. The data in this study indicate that the portraits of students were made based on their behaviour, achievements and socio-economic background. Data also indicate that teachers used their student 'portraits' as a rationale for supporting stronger students and ignoring weaker students.

One of the excerpts of my field notes reads;

Teachers are now evaluating exam papers. Nowadays, they examine test papers when they have a stopgap. They laugh about the students' responses. They read

from students' papers aloud to colleagues. Sometimes they discuss some students' scores if the scores are abnormally high or low. I heard a teacher talking about a student who answered a question about a children-park in a way that she was not taught. However, the answer looked like a real-life experience of the student. 'She must have been to a children park...' the teacher said. (Fieldnote)

The extract indicates how they make an image of a student's outside school activities and their day-to-day life from their exam paper. The student wrote something about a children's park, which was not what they were taught but looked like her real-life experience. In Bangladesh, especially in rural areas, 'children's park' (a designated outdoor play-area with swings or climbing frames) are not very common. Yet, the student wrote something that indicated her experience of a playground which is only available in the towns and usually the well-off families visit those. Thus, teachers concluded that she might have gone to one which is an indicator of their well-off family condition. While teachers' classroom practice is quite private, working together on students' exam papers or sharing such stories, outside of the class, often helps to create a common understanding about the students (Hogg & Terry, 2000). This is an example of how the identity of a student may developed or be restructured by the teachers.

According to the data, the creation of such identity is started by a class teacher in a classroom but spread among other teachers when they share stories about those students. Although, in this school, teachers already knew about students' family situations, and any specific event in the classroom or any response in their exam papers often provided the teachers with more information about the student to confirm or contradict their existing impression. Moreover, the stories about students' responses in exam papers were observed to be elements for teachers' humour, concern or hope.

A teacher was sharing her students' response in the test. The response appeared to be hilarious to the teachers.

Nahar (F): My students made up all stories (in the test paper) ...

Parvin Akter (F): Same here, Lalbagh Kella (Lalbagh Fort) (Laugh) the kella where Lal Bagh⁷ (red tiger) lives... [laugh out loud]

Nahar (F): Poor children.... A question was how will you behave with young children? One of them answered... “we will tap on their head if they cry.... We won't make them cry... we won't fight with them... won't shout them... love them”... more like this... They just write whatever comes in their mind... [all laughed]

(Staffroom conversations)

In this conversation, teachers were sharing some students' responses in the exam paper that were not what they taught. Their responses involved their own language without any relevance to what they had been taught in classroom. Thus, teachers found these funny. While this conversation provides an opportunity of innocent laughter, they could also create a common image of the children as childlike. These teachers often expressed sympathy to the students who made a childlike response in the exam paper. Following conversation indicates how teachers can identify a student from their responses in an exam paper.

Titly Pervin (F): You know what (one of) my students wrote? Sorafot, do you know the climate of Bangladesh?

Sorafot Hossain (M) Our climate is temperate ...

Parvin Akter (F): No, you do not know [laugh]...

⁷ Lalbagh is a historical fort in the capital city Dhaka which was established by the Mughal Emperor in the 17th century and currently is a topic in the primary textbook. Lalbagh sounds like it is made of two words, Lal means red and Bagh means Tiger in Bangla although the real meaning of Lalbagh is a red garden. The student interpreted Lalbagh as a red tiger rather than a historical establishment. This interpretation obviously was not provided by a teacher in a classroom since it is not relevant at all. The student just made the definition up.

Titly Pervin (F): The climate (in Bangla 'Jalobayu' which is made of two words; 'Jol' means water and 'Bayu' means air) of Bangladesh.... They wrote... we won't bath our cattle in the climate... we won't throw rubbish in the climate... [laugh]

Sorafot Hossain (M) Which class?

Titly Pervin (F): Four... she is a good student though...

Sorafot Hossain (M) Four science? Maria Bin Taza?

(Staffroom conversations)

In this discussion, *Sorafot Hossain* and *Parvin* immediately identified the student about whom *Titly* was talking about although her name was not mentioned in *Titly's* story. This shows that through such conversation teachers create and share a common understanding about students. Not only did they understand the nature of the student, but also the student's learning needs. For instance, the following conversation indicates teachers identifying students' learning needs by discussing their responses in exam paper.

Parvin Akter : Whatever comes to her mind, she writes... what is the problem [laugh]

Titly Parvin (F): She saw Jol (water) and Bayu (air)... and thought that this is about pollution...

Sorafot Hossain (M) If they understand the question properly, they can answer correctly, but they do not understand the answer properly...

(Staffroom conversations)

The teachers concluded that the student needs to understand the question better. They considered her a sensible student, but her problem related to understanding the question.

This identity creation may help teachers to understand individual students and their needs which eventually may help teachers to devise more student-centric lesson (*Carolan and*

Guinn 2007). However, 'childhood' is a social construction (Austin, Dwyer, & Freebody, 2005) and teachers can treat different children differently when they create images of children. For instance, an early study suggested that teachers tend to interact and spend more time with those children whom they consider to be more successful (Sharp & Green, 1984). However, images of students can also create in teachers a contempt or disdain for some whom they consider to be ignorant or beyond help. Some of the teachers' conversations indicated that they put more effort into the students who they think have more potential in terms of securing better scores in exams, while another quote from a teacher suggests that she became disdainful towards students who she felt are ignorant. For instance, in the following conversation, teachers were discussing the test scores of two students and identifying their strengths and weaknesses. The conversation also indicates how they tended to make efforts to ensure they achieve better scores in future exams.

Titly Parvin (F): Ratul has only one incorrect multiple choice but Simjini got six wrong!... but Ratul's handwriting is horrible... he scored very bad in descriptive section... in contrast... you cannot mark down Simjini's descriptive section...

Parvin Akter (F): There is no scope of cutting the score in Simjini's writing...

Titly Parvin (F): Yes... she is so good...

Ashraf Rahman (M): But both are very ignorant... they never are serious with their study....

Parvin Akter (F): Every day I check their work... they never complete those....

Ashraf Rahman (M): They just have a God gifted brain... that's what they have... but they do not study enough...

Parvin Akter (F): They are not naughty... but they tend to skip their homework everyday....

(Staffroom conversations)

Ratul and Simjini were the two best performing students in grade five, and they were expected to bring glory to the school in the upcoming public exam results. Teachers often discussed their performance in the staffroom. In this conversation, teachers indicated that the teachers regularly check their works and encourage them to perform even better.

On the other hand, in one instance, a teacher expressed disappointment about the ignorance of a group of students.

Benu Akter (F): I keep trying to make them learn maths... they do not listen to me at all, I always ask them to take note... they never listen... what can I do...

(Staffroom conversations)

The students in this class were perceived as unmanageable to Benu, she seemed exhausted and hopeless.

Teachers also identified the problems and think of possible solutions to support another student.

Benu Akter (F): Abani is good. But the problem is she never asks questions. Whatever she understands.... She studies in her way...

Nazu Begum (F): Then we have to remind her things....

(Staffroom conversations)

Here Benu shared her understandings of Abani with Nazu and Nazu identified what to do to make sure Abani does better. As Nazu concluded that they need to repeat subject matters to Abani, it indicates that the image they create collaboratively may have an impact on their teaching in the classroom.

d. Creating distributed leadership

The contemporary discourse of educational leadership suggests that leadership is not solely embedded in formal roles but often emerges from relationships between people (Scribner,

Sawyer, Watson, & Myers, 2007). That is, the relationship between individuals plays a central role in developing effective leadership. According to the concept of distributed leadership, in an organisational context, decisions are made collaboratively rather than individually. Scribner et al. (2007) draw on their earlier study in the USA to suggest that students often achieve at higher levels in a distributed leadership school context. In such a context, teachers work in self-managing teams to develop goals, curricula, instructional strategies, budgets and staff development programmes.

The data of this present study indicate that although teachers rarely develop goals, curriculum and budgets of the school, they often collaboratively contributed to the planning of instructional strategies and professional development programmes. Their practices had some aspects that are aligned with the characteristics of distributed leadership. Although the teachers mentioned in interviews that they experienced a sense of ‘controlled freedom’ due to the prescriptive teaching methods in the teachers’ guide and requirements to follow these, they were observed to discuss different instructional strategies outside the teachers’ guide with each other. A discussion between two teachers on lesson planning follows:

Benu Akter (F): I am going to take a class on the process of days and nights. I was just wondering how I can make it effective. I always struggle to explain the earth’s rotation on its axis.

Titly Pervin (F): We could use the globe model and a candle to explain that. I have learnt it in a training.

Benu Akter (F): Yes, we can make groups to plan and demonstrate the globe and candle experiment! (Staffroom conversations)

This discussion is reflected in their lesson plan.

সংক্ষিপ্ত পাঠ পরিকল্পনা-২০১				
শ্রেণি-বিষয়-পরিষেবা-তারিখ	বিষয়ের/আজকের পাঠ	নির্ধারিত সময় / মেসোজা	মুদ্রায়িত কৌশল	নির্ধারিত সময়-মোট/মোট শিক্ষার্থীর সংখ্যা
শ্রেণি-বিষয়-পরিষেবা-তারিখ	বিষয়ের/আজকের পাঠ	নির্ধারিত সময় / মেসোজা	মুদ্রায়িত কৌশল	নির্ধারিত সময়-মোট/মোট শিক্ষার্থীর সংখ্যা
শ্রেণি-বিষয়-পরিষেবা-তারিখ	বিষয়ের/আজকের পাঠ	নির্ধারিত সময় / মেসোজা	মুদ্রায়িত কৌশল	নির্ধারিত সময়-মোট/মোট শিক্ষার্থীর সংখ্যা

Translation:

First column: Class/Subject/Period/Date: Class five, Primary science (Hand written)

Second column: Content/ today's lesson: Days and nights, axial speed (5.6) (hand written)

Third column: 6.3.1: (students) will be able to show the process of days and night using a globe (hand written)
 12.2.2: will be able to explain the process of day and night through an experiment. (hand written)

Fourth column: Assessment strategy

Fifth column: number of students who do not achieve learning objective

Figure 12: A lesson plan

In this lesson plan, the teacher included a learning objective that the student would be able to show the process of day and night using a globe.

Similarly, the teachers also had some autonomy to identify their professional development needs and inform the training provider agency, Upazila Resource Centre (URC). A discussion on identifying training needs follows:

Headteacher (M): ... We wanted to conduct the Need-based Sub-Cluster Meeting on Thursday, but it is a government holiday, so we need to shift it to Saturday. I would request you to come up with the idea of what we can do in this meeting...

.....

Sorafot Hossain (M) Conducting multimedia classes is an issue... some of us have training on that... others do not... who have the training they often do not have access to the multimedia room, on the other hand, who do not have the training, they go to that room... we do not have laptops as well... how we can ensure that resources are being used effectively...

Nazu Begum (F): Developing content is not an issue... we can do that if someone shows us for a couple of days...

Headteacher (M): this is a good idea... we also need to plan to share the multimedia room... you go for one day and then allow your colleague for another day....

(Staffroom conversations)

The conversations above show that teachers have some autonomy over determining instructional strategy and their learning needs. This autonomy, in this school context, is used to make collective decisions. By this agency, teachers created a shared leadership environment in the school. For instance, the second conversation shows that the headteacher invited the teachers to identify their learning needs. An autocratic leader or centralised leadership would decide what to provide teachers for professional development. The headteacher welcomed the teachers' contributions to the decision-making process and the teachers exercised their agency by participating in those process.

Similar instances of shared leadership were provided in the 'planned collaboration' (Section 6.3.1), where the evidence shows that teachers were given specific responsibilities and leadership for accomplishing those tasks e.g. preparing monthly attendance report, managing technological equipment etc.

The headteacher said:

.... The responsibilities are distributed among them (teachers)... they take responsibility for specific tasks and others help them... (Interview)

These distributions of responsibilities and leadership come through varied dialogues and decision-making process (Scribner et al., 2007). The dialogues and decision-making processes in this school indicated a relatively flat hierarchy within the school, even though this is not the national culture. Moreover, interpersonal relationships and trust between the headteacher and the teachers were key to shared leadership. The headteacher claimed that

he acted as a colleague with the teachers rather than a boss. The teachers in this school also acknowledged the friendly relationship between the headteacher and themselves.

e. Creating liminal spaces:

The teachers' conversations showed that they frequently shift the focus of their conversation between social and professional matters. They often started a conversation about one aspect and move to another and came back to the original discussion. In the following conversation, teachers started talking about a health issue of a teacher and eventually reached a professional discussion where they compared an assessment issue between their school and a neighbouring school.

Ashraf Rahman (M): ... I did my surgery in las Eid (Festival of Muslims') vacation but now I do not have time to follow it up.

Shokhi Mirza (F): But you should make it confirm that there is no (health) issue anymore...

Ashraf Rahman (M): How can I take too much headache... I have to run and run always...

Titly Pervin (F): Life is running... You see... I had to prepare breakfast today by 7:30... then other work... then start for school...

Nahar (F): I am always running behind my child.... His education....

Titly Pervin (F): By the way... how is Sakib (child of a teacher who shifted from this school to another) doing? How is his result?

(Staffroom conversations)

From this point onwards, the teachers discussed Sakib's test score and the way Sakib's new school marked students' papers. One teacher continued:

Nazu Begum (F): That school always give less mark to student... they do it intentionally so that students always keep pressing them for higher score....

(Staffroom conversations)

In this conversation, teachers shifted their focus from their personal life to their professional matters, from a teacher's health issue to children's education. One teacher took the discussion to further depth by mentioning the relationship between assessment and student's motivation. Later on, this conversation returned to the social discussion. This shows how personal conversations play a role in facilitating professional discussion.

The space between such social and personal conversations and where professional discussions take place may be called a 'liminal space' of transactional talk between non-teaching and teaching matters (Czarniawska & Mazza, 2003). Meyer and Land (2005) suggest that liminality is a 'liquid' space, simultaneously transforming and being transformed by the person as he or she moves through it. While Meyer and Land (2005) discussed liminality in a learning context and referred to the transitional phases of learning, here, liminality can be seen as a transitional space between the content of different conversations taking place between teachers. In this teachers' discussion context, such liminality shows how strongly their personal experiences are embedded in professional activities, and how their professional thinking is embedded in their day-to-day life. It also indicates a wider nature of the community of practice – teachers' practices are not only limited within their professional boundary but spread out in their social and personal lives.

In summary, this section on unplanned collaboration illustrates the varied nature of teachers' collaborative talk and the diverse functions their collaborative talk fulfils.

Teachers jointly compared themselves with other government and non-government agency staff, expressed frustrations about the lower facilities they are provided compared with the other agencies and, at the same time, took pride in being teachers. Through these they strengthened their solidarity with the teaching profession. Sharing experiences of their

professional, social and personal lives, in addition to engaging in professional and social disagreements provided them opportunities for restructuring knowledge. They shared stories of their classroom activities and students' behaviours that helped them to create portraits of the students. The professional and social dialogues they were involved in were profoundly overlapped and there were fluid, transitional (liminal) spaces among those dialogues that offered them opportunities for professional development.

6.4 Chapter Summary

This chapter addressed the first and second research questions of this study: How is the concept of collaboration understood by teachers in a rural school in Bangladesh? and What is the nature of existing collaborative activities in the wider school context? While existing studies in the area of teachers' perceptions of collaboration mainly explore teachers' perception of the importance of collaboration and experience of participating in collaborative activities, the first part of this chapter revealed what teachers understood by collaboration. It showed teachers' perceptions of collaboration as a ubiquitous aspect of their professional and social life. The findings indicate that the practices of the teachers' communities were not limited to the professional territory but overlap with their personal and social life. Therefore, the way the notion of collaboration is perceived by the teachers is not restricted to their practice in the school. They helped each other professionally, socially and personally and according to them, those different instances of mutual assistance were collaborations. They thought that through collaboration they could grow professionally, socially and economically. This chapter also revealed the characteristics or situations the teachers thought were conducive for collaboration. They identified positive interpersonal relationships, leadership and challenging situations as conducive to collaboration. The teachers thought they would collaborate with the colleagues who were helpful. However, the personality of colleagues and social norms were also indicated as

factors they considered for collaboration with colleagues. Teachers thought they collaborated more in challenging situations. Lunchtime was considered the most effective time within the school hours for collaborative discussion by the teachers.

The second part of this chapter explored the nature of collaboration and revealed that there are planned and unplanned types of collaboration. The planned collaboration involved co-teaching, professional development-related activities, routine school management tasks and ad-hoc basis teamwork. Firstly, in this school, a pair of teachers was responsible for planning and delivering lessons of a subject in a grade in two different sections (classrooms). They were observed to plan lessons jointly for that. Although such co-planning was observed very occasionally, this provision of lesson sharing offered them a formal platform for teaching-related collaboration. Secondly, professional development related activities were staff meetings, professional needs identifying meetings, lesson study programmes and lesson sharing in different sections of a class. The professional needs identification meeting and lesson study were promoted by external agencies (e.g. local and central education authorities, and international donor agencies such as JICA). Whilst there were three formal mechanisms for professional development (needs identification, lesson study and staff meetings) two of these did not happen at all during the data collection period and the third usually served only an administrative function. Teachers actually did not experience any regular formal professional development activities within the school. Thirdly, the teachers performed various tasks to keep the school operation smooth and to help the headteacher. A distributed leadership approach was taken for performing the day-to-day school management work. The headteacher was observed distributing tasks among the teachers. For different tasks often there were different committees comprised of more than one teacher. While these distributions were aimed at breaking the tasks into bits and pieces, a positive social relationship among the teachers resulted in interdependence and an

engaged working style. Finally, teachers formed teams on an urgent basis when required. Most of the situation-based teams were created to perform non-teaching related tasks. Teachers were invited to engage in such teams voluntarily by the headteachers. The engagement of teachers in such works indicated their commitment to the school and the bond among the teachers' community. These types of instantly planned collaborations were claimed as contributors to the teachers' social relationships by the headteacher. The planned collaborations were predominantly initiated and led by the headteacher and were teaching-learning oriented, routine school management tasks and ad-hoc teaming. However, these collaborations are characterised by a shared sense of responsibility among teachers. It was noteworthy that, planned and goal-oriented activities (especially related to professional learning) did not take place regularly, but the administrative routine tasks and ad-hoc basis activities were regular.

In contrast, unplanned collaborations were mostly the day-to-day collegial interactions characterised by social cohesion and trust. The data indicate that through unplanned collaboration teachers strengthen their solidarity, negotiate and restructure knowledge, create student identity and promote distributed leadership. First, through the exchange of social and emotional aspects teachers were found to build an image of *self*, as a teacher and the member of a community. Through such emotional exchanges, they portrayed a solidarity with teachers and colleagues in general. Secondly, by sharing experiences of teaching and learning and concern about students and personal matters, teachers negotiated the meaning of their practice. They shared the experience of their professional and social life. Storytelling was a commonly found style for sharing these experiences. Thirdly, teachers were observed creating portraits of their students through collaborative discussions. Through the experiences of teaching and assessment, teachers shared with colleagues in informal conversations and were found to be contributing to creating students' identity in the eyes of the teachers. This was how teachers make images of 'good' and 'bad' students which seemed to be associated with their classroom practice.

From the teachers' conversations, it can be inferred that they concentrated on 'good' students in the classroom more than other students. Fourth, a distributed leadership approach was observed in the day-to-day collaborative practices of teachers. The unplanned collaborative interaction produced a sense of shared responsibility among the teachers. Specific tasks were distributed to specific teachers, but the positive social relationship produced a sense of shared responsibilities and accountability. Finally, the data show that teachers' professional practice was profoundly embedded in their day-to-day personal and social life. In their conversation they frequently shifted from professional to personal and social matters and vice-versa. Within their social conversations, they often introduced professional aspects and created a liminal space.

A noticeable aspect was that, although teachers claimed that they do not have much time for formal collaboration, they were observed to spend significant amount of time on social interactions. It can be concluded that there were spaces for collaborative talk and activities embedded within the busy schedule of teachers in the school studied. Through planned and unplanned joint activities teachers collaborate with each other. However, a structured understanding of how collaboration could be used as a tool for effective teachers' professional development and boost student achievement did not seem to be in place.

Chapter Seven: Findings – Factors influencing teachers’ collaboration

7.1 Introduction

This chapter discusses the factors that influence teachers’ collaborative activities in the school where the study took place. The data collected in this study suggested that teachers’ collaborative activities were influenced by the school’s wider socio-cultural context, the organisational culture, and the personal attributes of the teachers. The wider socio-cultural perspective included the way people live in the locality (the village) and was not limited to only the organisational context. The organisational culture implied the regulations and norms in the wider educational system in Bangladesh that included local, national and international agencies. The individual attributes of the teachers included their educational experience and the extent to which they were able to exercise personal agency.

These factors could be categorised and explained by the ecological learning model of Bronfenbrenner (1994). This model was explained in Section 5.4 (Approach to analysis). This model provided a framework for analysing a context that includes global, social and interpersonal aspects. Although this model was designed to explain how different systems within a society impact on learning outcomes or experiences of learning, it was also helpful for understanding how the systems influence participation in learning.

The socio-economic aspects and the cultural norms and values were the wider system (which Bronfenbrenner called a Macrosystem) of the ecology of the school studied. The organisational culture and the national and international educational agenda came under the Exosystem layer of the ecological model. Teachers’ families and educational and professional experiences were spread among Mesosystem, Microsystem and the Individual layers. However, Neal and Neal (2013) argue that Bronfenbrenner’s model implies that the layers are nested in one another but often overlap, and the aspects of different layers are fluid.

In this study too, the factors that affect teachers' collaboration were not discrete but there was a complex network of these factors. Thus, it was difficult to distinguish factors that belong to the Exosystem in the ecological system of Bronfenbrenner from the factors that were within a Macrosystem. This was because this study took the teachers embeddedness in a community into account. I attempted to analyse how the nature of the community influences teachers' collaboration. The influence of the community on teachers' collaboration has not previously been researched in any depth. I discuss the influencing factors revealed in my data in three broad areas: factors related to the wider culture of the society, organisational factors and individual factors.

7.2 Influence of wider cultural factors on teachers' collaboration:

The administrative and wider culture of Bangladesh is characterized by a centralized, top-down approach (Dutta & Islam, 2016). A sense of hierarchy is a dominant characteristic of the day-to-day culture (Haque & Mohammad, 2013). This sense of hierarchy springs from social norms, the conceptualisation of gender and the sense of security (Haque & Mohammad, 2013; Hofstede, 2009). The following subsections show how the sense of hierarchy, construction of gender and the degree of social cohesion regulate teachers' collaboration in the studied school.

7.2.1 Sense of Hierarchy

One of the significant cultural norms in rural Bangladesh is a high degree of respect afforded to a person of higher social status within the hierarchy. Social status could be determined by age, position in society or an organisation, or by the degree of their economic security (Bridwell-Mitchell & Fried, 2018). The sense of respect enhances power distances and in this study was observed as a barrier to interaction between two individuals of different social status.

In this study, the teachers were observed to be less likely to engage in discussion or collective work with the most senior teacher in the school. The teachers indicated that

they thought discussion may turn into disagreement. The senior teacher was senior in terms of age and teaching experience. He had been teaching for 29 years in the same school and some of the teachers had been his students. In general, teachers in Bangladesh are highly respected by students, parents and other members of the society (S. Burton et al., 2019). The teachers who were the student of this senior teacher experienced even more power distance between them and the senior teacher. This relationship made a gap between the teacher and his colleagues. One teacher said:

I talk least with Shariful sir... because when I was a student in this school, he was my teacher (smile)....

In the event of collaborative discussion and action with this senior teacher, other teachers were less likely to engage in argument and disagreement. The senior teacher (Shariful Islam) shared a class with a junior teacher (Sorafot Hossain). They conducted lessons in the same grade but in different sections. For this, they were supposed to work very closely on planning the content and pace of lessons. However, Sorafot was observed carrying out most of these duties without the aid of his senior colleague. When they worked or discussed something together, the junior teachers mostly accepted what the senior teacher said. The following is an example of such a discussion.

Shariful Islam (M) (the most senior teacher): School should have a strong Managing Committee. The schools which have strong managing committee can secure fund for physical improvement. We do not have such committee; they do not have negotiation skill...

Shorafot Hossain (M) (one of the most junior teachers): Alas! We do not have such a committee! (Staffroom conversations)

In fact, senior teachers were observed to have less conversation than other teachers. The more senior the teacher was, in terms of age and teaching experience, the less s/he talked in the staffroom with colleagues.

An exception, however, is the most junior teacher (Shokhi Mirza) who taught only three years. She was a newly appointed teacher and only 25 years old. She was found talking least with colleagues. When she was asked about her low participation in the discussion she said:

All of them are older than me and have been in this school for so long.... (Follow up interview)

This indicates a sense of insecurity of the youngest teacher in the teachers' community of the school. This insecurity could be either a product of shyness as she was still understanding the norms of the community, or the sense of hierarchy. However, in her response, she signalled the latter explanation. Being the most junior member of the team, she respected and feared other teachers which made her speak the least.

The data in this study also indicate that another consequence of this sense of hierarchy was uncertainty. Teachers were concerned about the possible consequences of upsetting a person with higher social and organisational power and thus tended to avoid any possible confrontation with them. For instance, there was a higher power distance between teachers and local education officials. A lack of evidence of the use of the teacher guide in the lesson plans might upset the education officials. According to the teachers, this situation had restricted the amount of collaborative lesson planning taking place. One teacher informed me that after they received the guide and the instruction, their collaborative discussions reduced because they could not use their creativity of teaching like before. He said that he would not make the officer angry.

Similarly, teachers were often afraid of being relocated. They might get transferred to a different school at the discretion of the local authority. In one instance during the data collection period, a local education officer came up with an idea of turning the school into a two-shift school, so that the number of classes in a shift would come down and teachers would have more free time to work on planning and developing together. In the presence of the officer, the teachers nodded their head but once he left, they strongly opposed the idea. They thought that in the case of double shifts more teachers would be available in the staffroom, and they might be transferred to another school where there was a shortage of staff.

Although uncertainty restricts collaborative activities in many cases, it often promotes joint activities too (Cohen et al., 1979). To avoid uncertainty, teachers in this study often sought help from each other. When there was a new or complex situation and teachers felt uncomfortable, they became more interdependent. In the earlier stage of my fieldwork, I had seen teachers discussing together their lesson to make them better as they considered me as someone superior to them who might criticise any fault in classes. In fact, they said that in any challenging situation they worked more jointly.

"In different times and different works, we have to do all together... when it is challenging (situation), we work together...." (Interview)

Conversely, lack of uncertainty could lower collaboration among teachers too. In a government primary school in Bangladesh, teachers enjoyed all the benefits of government employment including high job security. Higher job security is often regarded as a motivational factor for employees (Ololube, 2006) however, in this study, higher job security often appeared to demotivate teachers professional development. A male teacher said,

... our job is very secure; it won't go easily even if we do some mistakes...

(Follow up interview)

The negative relationship between high job security and motivation was probably because of one of two reasons. First, when a need was satisfied, it is no longer a need (Maslow, 1943), so the high job security may discourage teachers to improve their performance. Secondly, although their jobs were secured, there was no career-progression ladder in their profession. That means, there was no promotion or any other incentive based on the performance; the salary scale rose according to years of teaching experience (M. S. Rahman, 2019).

In general, the evidence presented above indicated that the hierarchical culture and the sense of power distance restricted potential opportunities for collaboration. Yet, positive leadership might have reduced the impact of uncertainty. In this school, the power distance and uncertainty were exceptionally reduced by the style of leadership of the headteacher. The headteacher's age was between 40-50, and he had been in the teaching profession for thirteen years. He had a young appearance. His age, teaching experience and outlook made him an easy-going person for the teachers. He unusually created a flat hierarchy with his colleagues by his friendly approach. Such a flat relationship between a line manager (headteacher in this case) and subordinates (teachers) is unlikely in a Bangladeshi organisational context (Haque & Mohammad, 2013). Yet, in this school the headteacher was observed to be accessible to the teachers, and the teachers also indicated that they found the headteacher friendly. According to the headteacher, he considered himself as a colleague of the teachers rather than a boss and treated them equally which made communication between them easier and effective. He said:

“If I boast as a boss and think they are my subordinates, there will be a huge distance between us and no task will be accomplished... so, rather than acting like a boss, I consider myself as their colleague... I treat myself and others as of similar rank... I try to help them even if they need any assistance for family affairs... I try

to provide equal opportunity in terms of everything... I sit with them... talk to them... have lunch together... thus they also come forward together in any matter..." (Interview)

How the headteacher could make such an exception (breaking the hierarchical norms and practice) was explored through formal and informal interviews, which included spending social time with the headteacher outside of the school. The headteacher said that his motto was 'to make the school an effective workplace'. A bossy attitude, according to him, was not effective for that. From discussion with the headteacher, it appeared that he believed in a liberal leadership. He was observed to be making decisions collaboratively with the teachers and providing them much freedom (allowing the teachers to come out from the class whenever they wanted, leave school early and come in late, although the teachers were not observed to be using this provision unprofessionally). This seemed to arise more from his personal traits than from cultural norms. Such personal attributes and his leadership style enabled the headteacher to dismiss cultural pressures. While these pressures were implicit in the daily interactions between the headteacher and the teachers, their seating arrangement in the staffroom was a visible factor that contributed to such a flat relationships. They all sat in the same room and teachers could talk to him without any hesitation. A teacher might ask the head teacher if she could leave the school early without leaving her chair. The data have several examples of such conversations between the headteacher and the teachers.

The data presented in this section reveals a paradoxical relationship between the hierarchical culture and teachers' collaboration. Collaboration was observed to be minimal between a senior teacher and rest of the teachers because of his higher social status (being a senior, male and a person who had stronger links with higher officials in the local authority). In contrast, the organisational hierarchy (relationship between teachers and the headteacher) did not hinder collaboration. This was because the senior teacher cherished

the cultural hierarchy (probably because he was from the ‘old school’) whereas the headteacher tried to break the cultural norms of hierarchical leadership.

Yet, the headteacher did not actively take advantage of the friendly relationship among the teachers. He did not provide any guide or direction to the teachers for professional collaboration. Such failure might result in more social interaction among the teachers than professional learning activities.

7.2.2 Social construction of gender

Like the sense of hierarchy, the cultural construction of gender was another factor that was found to be restricting joint activities for female teachers. Bangladeshi culture, especially rural society, is considered to be a patriarchal one. For instance, in rural Bangladesh, the ‘purdah’, religious and cultural practice of concealing women from men, was a significant norm (Haque & Mohammad, 2013). This practice was a tradition among both Muslims and Hindus, the majority in Bangladesh.

However, nowadays, the scenario has significantly changed, especially, in the primary education sector where the participation of women is notable. The proportion of female teachers in primary schools was more than 64 percent (BANBEIS, 2017) and government always encourages women to join primary teaching. Women are allowed to enter with lower qualifications than men in primary teaching. The requirement of the government for primary school teachers is a Bachelor degree for males and a Secondary School Certificate (SSC) for females (J. I. Mullick & Sheesh, 2008).

Nevertheless, the longstanding traditional masculine culture in rural Bangladesh has had a profound impact on teachers’ collaboration. The data suggest that the task distribution by the headteacher was influenced by the construction of gender (i.e. how the role of male and female are constructed by the social norms). For instance, male teachers were often assigned for going out for some administrative tasks (i.e. bringing textbook or teaching

materials from the Upazila Education Office) by the headteacher. When the headteacher went to the local education office, he often took a male teacher with him.

Female teachers, in contrast, were given desk tasks such as preparing a monthly report or making students' mid-term test result report. Culturally, women are perceived as less able (and less willing) to go outside without a male guardian (usually a family member) (Amin, Diamond, Naved, & Newby, 1998). Although the female teachers went to school and professional events on their own, they rarely went out of the school. The involvement of female teachers in the school's financial administration was also observed to be less frequent than that of male teachers. For example, the teachers' salary needs to be drawn from a government bank which was a few miles away from school. Some of the male teachers went together to draw the salaries from the bank on behalf of all the teachers, including the female teachers. Hiring and paying the electrician who installed a projector in a classroom was also a responsibility of a team of two male teachers.

Although female teachers stayed in school as male teachers went out for administrative and other work frequently, the degree of collaboration among the female teachers was not observed to be higher than that of the male teachers. This is because most of the time the female teachers were in classrooms and even when they were in the staffroom, were busy with either test paper marking or admin work. These activities were not very collaborative. However, social conversation (on topics such as children's education, new recipes) was more common than was the case with the male teachers.

Gender also acted as a barrier for frequent communication between certain male and female teachers. As mentioned earlier, female teachers, being married in the locality, have lesser engagements in professional and social interactions with male colleagues as they were also from the same locality. The social respect to the people from her husband's locality, especially to his relatives, by a woman, reached a higher degree than usual (Sultana, 2009). Any argument or confrontation with those people by a woman was

regarded as a social taboo. If a female teacher goes through any confrontation with a male colleague who has a social and personal relationship with her husband, that is a serious matter. Thus, most of the female teachers tried to avoid any debate or argument with male colleagues. Joint work between one female teacher and the most senior teacher (who is from her husband's locality) was not observed during the data collection period, although they had very occasional conversations. The female teacher said,

I am a bride of the locality of Shariful sir. So, it is less likely that I talk to him...

(Follow up interview)

Moreover, male colleagues gathered together outside of the school after school hours and during off days for various purposes including social gossip and business matters. This type of gathering for female teachers was unlikely because after school hours they had to attend to family and household matters. The male teachers in this school went to local tea stalls after school time almost every day and spent a few hours together. During this time, they were observed discussing issues ranging from family matters to social and professional issues, such as their day-to-day work experience and the agenda of the local teacher union. For example, a teacher union retreat was initiated and planned in such a meeting. While male teachers had the luxury of meeting colleagues outside of the school, female teachers returned home and took care of their family responsibilities. The evidence described in this section suggested that gender is a factor that influences the nature of teachers' collaboration inside and outside of the school. The perceived role of women (both by men and women) in the community has led to a task division within the school. While male teachers, in general, took responsibility for tasks outside of the school, female teachers were mostly engaged in desk-based work. The data also suggests that female teachers were culturally restricted from a wider participation in the CoP.

7.2.3 Social Cohesion

Strong social cohesion was another cultural characteristic of rural Bangladesh which had a positive consequence for teacher collaboration in this study. Bangladesh has a closely-knit rural society which is largely characterised by a collectivist culture. Haque and Mohammad (2013) suggest that the social norms and values set by the Samaj (society) are highly influential on the life of any member of the society. These norms and values on the one hand, set a higher power distance, on the other hand, they promote a perception of the importance of cohesion. These were reflected in the school workplace of the current study. Being from the same locality the teachers knew each other very well. In fact, in a locality (which may consist of several villages) people typically know the members of the society by their family. Likewise, the teachers in the school had communication among them at a family level.

At the family level, the teachers took their family to colleagues' houses, invited each other and brought foods from home to share with colleagues. Male teachers' wives were aware of the husband's colleagues' food choices. Teachers often were seen bringing additional food for colleagues. A lunchtime conversation follows:

Shorafot Hossain(M): I have 'Khichuri' (food combined rice, lentils and spices together) today. Asraf vai, your Vabi (Shorafot's wife) has given extra Khichuri for you.

Asraf: Yes, yes, she knows very well that I like her Khichuri very well...

Nazu Begum (F): What about us? Are we not your colleagues? (laugh)...

Shorafot: Why don't you come over sometime next week?

Nazu: Next week model test is going to start....

(Staff room conversations)

There were numbers of similar conversations within the data. These conversations indicated that the teachers belonged to a social community characterised by strong cohesion. This social community influenced the relationship and behaviour within the professional CoP in and beyond the school. The personal communication among the teachers had a role in their professional collaboration, and the liminal spaces (discussed in the previous chapter) in their conversation were evidence for this.

Teachers also mentioned the overlap between their social/personal lives and professional lives.

One male teacher said:

I spend more time with our colleagues than with my wife, eight hours in school, then we spend some time in the Bazaar and tea stall. We go to the house only in the evening. We cannot separate our professional life from our personal life.

(Follow up interview)

This relationship had given the teacher legitimacy for getting involved in colleagues' activities. The teachers did not hesitate to take a colleague's resource (e.g. journal where they plan their lesson, teaching materials etc.) in their absence and without asking their permission. They entered a colleague's classes anytime they wanted and criticised their practice, usually, though not always, in a friendly manner. The feedback mostly involved error corrections or suggesting alternatives, rather than constructive discussions. A discussion between two teachers follows:

Benu Akter (F): My lesson was a mess today.

Titly Pervin (F): (While looking at the lesson plan of Benu Akter) You should not have planned this lesson for all these topics. You either could teach about first aid in the occasion of snake's bite or sinking in the river... (Staff room conversations)

The tone of Titly Pervin comment was authoritative in her conversation, was giving instruction (e.g. *you should do this...*) sounded like she felt joy to find a fault in the lesson plan. However, the way Benu responded to Titly's feedback implied that she was not offended by such remarks. The later part of the above conversation indicates that Benu was listening Titly's suggestions attentively and was asking prompt questions. If she was offended, she would have stopped the discussion immediately. This was because they had a social relationship that helped her to consider such feedback as friendly criticism.

As this cohesive rapport allowed teachers to get involved in colleagues' professional and personal matters without hampering the relationship, it also made them responsible for their tasks (including covering classes) in their absence. In the case of a teacher's absence, any of the colleagues could cover her class. This social relationship had made the community of practice among the teachers wider and complex. Social cohesion promoted frequent interaction and at the same time made the interaction more informal. Evidence of this kind often seemed to show the group of teachers as simply a community, rather than a CoP. Most of the interactions among the teachers are found to be social conversations, with professional subjects and plans less frequently arising. Schools are often seen as a distinctive community and this sense of separateness develops as schools became more bureaucratised and professionalised (Furman, 2012). Remedies have been taken to make connections between the school and outside society in the western world, such as shared governance structures that include community members. However, the evidence described in this section suggests that the teachers in this school, as might be expected in any Bangladeshi school, brought cultural attributes of the wider society in the school's CoP. The cultural sense of hierarchy, gender roles defined by the society and social cohesion among the teachers have influenced the nature of the community of practice of the teachers. At the same time, their professional practices influence their social practices

inside and outside of the school. For instance, teachers' social conversations often include professional contents and create liminal spaces. Thus, it became difficult to distinguish between the social community and the community of practice (CoP). Nevertheless, it was understood that the CoP of these teachers had more characteristics of a 'community' and less professional goal-oriented 'practice'.

7.3 Organisational level factors

The organisational level factors included workplace regulations, local and national support for teachers and a global agenda for education. These factors often interacted with wider socio-cultural and individual level factors and influenced each other. For instance, the low salary of teachers led them to be engaged in extra income activities and might have an influence on individual level motivation and the teachers' opportunities for collaboration.

7.3.1 Workplace environment

The data indicate that some school regulations and the workplace environment affected the collaborative practices of teachers. Although the education system in Bangladesh is highly centralised and is known for restricting independent decision-making (Kumar, 2015), the teachers in this study had some autonomy to make decisions about implementing the curriculum. Some of the decisions made by the teachers created opportunities for teachers to work jointly. For instance, co-teaching in different sections (in different rooms) of a grade, they often plan lessons, make test items and do marking of test papers jointly. Most of the pedagogical exchanges happened between the teachers who shared lessons. A female teacher (Benu Akter) reported

...my most of the classes are with Pervin madam (she shares most of the lessons with Pervin). I got three classes with her. Like... we share sections in (grade) five

science, Bengali in (grade) four and English in three. So I share most of the things (experience and resources, e.g. lesson plan and test items) with her.

(Follow up interview)

Although the provision of lesson sharing in two different sections by two teachers created an opportunity to share teaching plans and experiences, workload was reported to be a barrier to taking that opportunity. The teachers in this study, like any other government primary school in Bangladesh, encountered a wide range and a high volume of work in their workplace. Each teacher conducted six to ten classes every day and the class durations range from 35 to 50 minutes. In addition to that, they performed administrative tasks, such as assignments from other departments of the government, including the creation of voter lists, carrying out the census, running vaccination programmes and so on. Titly, a female teacher, who thought that the provision of lesson sharing was beneficial for her, also indicated that enjoying such a benefit was not always easy:

Sometimes we can do joint plans and discussions for our lesson, but not always we get that opportunity. You can see the situation (workload⁸) in our school... (Follow up interview)

The busy work conditions appeared to limit formal collaboration but triggered informal social chat among teachers. A male teacher said,

We work all day so hard... fun and gossips with colleagues help us to release our tiredness...

(Follow up interview)

⁸ The issue of workload came up several times during formal and informal interviews with teachers. Although in this conversation, Titly did not explicitly mention the word. From the previous conversations it was understood that she implied 'workload' by 'the situation'.

The teachers were observed to be having lighter social discussions in their day-to-day school schedule, which seemed to give them a bit of relief from the exhausting workload. The data contained a significant amount of these chatty discussions.

The social relationship among the teachers, flexible working condition and the physical structure of the staffroom seemed to be contributing to the teachers' social gossip. Earlier discussions (Section 6.3.2 and 7.2.3) addressed the social relationship among teachers which made them members of wider social community as well as the member of different communities of practices. The identity of teachers as members of the same social community seemed to dilute their identity as colleagues and they bring numerous social aspects in their day-to-day discussions in the school.

The school management (mainly managed by the headteacher) allowed for a flexible mode of working. Teachers could come out from the classes anytime they want and rested in the staffroom. During such resting time, teachers were mostly observed to talk about social and personal life.

The physical sitting arrangement of the teachers and headteacher in the staffroom (detailed and discussed in Chapter 6) enabled social gossip. The school building had seven classrooms and a teachers' room, where all the teachers and the headteacher sat during non-teaching hours. The teachers had lunch together in this teacher room during the lunch period. These conditions of the staffroom allowed the teachers to exchange social information. Moreover, there was a tea stall by the side of the school where the male teachers were often observed going together to have a cup of tea in leisure time (usually after lunch).

In summary, some aspects of the school's formal regulation enhanced teachers' professional collaboration. Conversely, the overwhelming workload and high teacher-

student ratio restricted joint working among teachers. For the same reason, workload increased teachers' engagement in more social discussions than professional interactions.

7.3.2 Local and national support for teachers

Teachers' salary and other job benefits are often considered as insufficient by the teachers (Burton et al. 2019). The data showed that the low salary scale had consequences on the time a teacher had for collaboration in the school in this study. As the salary was poor, many teachers in Bangladesh are involved in private tuition. The frustration of low salary is intensified by the limited scope for promotion. Teachers or headteachers had a very limited chance to get a promotion to a higher position.

The frustration emerged from the perception of low salary and lack of scope of promotion. This often demotivates teachers to develop professionally (Thornton, 2006) and encourages them to seek opportunities for economic and social benefits outside of their teaching job (Nath, 2008). This had a direct impact on the amount and nature of teachers' collaboration. Thornton (2006) suggests that in Bangladeshi secondary schools, teachers seek additional opportunities to raise their social and economic status. This distracts them from their role as teachers in the classroom. This eventually has an effect on the way of teachers' collaborative activities for professional development. Thornton found that teachers' conversations in a school more often involve political, social and economic topics than talking about their responsibility for teaching effectively in the classroom.

Although there were significant differences between the status of primary and secondary teachers, (e.g. most of the secondary teachers are not government employees) the situation Thornton (2006) described was similar in primary school and that was evident in this present study.

Three out of four male teachers, including the headteacher, were engaged in providing private tuition to groups of children. They hired rooms in the local market building for

these classes. They tended to leave school as soon as it closed which limited professional collaborative activities in the school. For instance, as discussed earlier in Chapter 6, as teachers rushed to go for private tuition after the last class, the lesson modelling activity, which was planned on Thursday afternoon, rarely happened. In fact, during eight weeks of data collection period, no lesson study took place.

Apart from the financial aspect, teachers thought that the administrative support from the local authority was also responsible for the existing nature of their collaborations in the school. The headteacher indicated that the Assistant Upazila Education Officer always encouraged them to work together to develop professional skills. Some local training events were planned across the country by the central education authority, the Directorate of Primary Education, which were implemented by the local primary education agencies such as Upazila Education Office (UEO) and Upazila Resource Centre (URC). The Need-based Sub-Cluster Meeting was one of the local workshops where local teachers from a sub-cluster, a local area under the supervision of an Assistant Upazila Education Officer, gathered together to discuss focused issues, ranging from administrative to academic concerns. In such meetings, teachers meant to share experiences and identify the solution of any issue encountered by teachers in schools.

While such support and provision were aimed at promoting collaboration among teachers across the schools, the centralised nature of the system restricted collaborative professional development in a school. Although teachers were encouraged by the educational officers to work together to identify professional needs and meet those needs primarily by consulting with colleagues and the headteacher, there was no allocated time in the daily routine for those activities. The headteacher said that they were advised by the local education authority to observe each other's classes and perform constructive discussions afterwards. The headteacher had to report the number of classroom observation done by him and the teachers and the topics of post-observation discussion to the education office. This

regulation motivated him and the teachers to perform formal observations, however the routine and additional tasks set by the education office took time away from such a joint observation and feedback process. In fact, no peer observation was observed during the data collection period. The headteacher said:

The regulations and advice of the education officers for doing formal collaborative professional development activates are encouraging. But, some of the regulations contradict each other... for example, according to the routine, we have to perform classroom teaching and those observations... but there are numerous additional tasks set by different offices. These are not in the routine... we are instructed to save some time somehow to balance the additional tasks and the academic job... these words are nice, but the reality is very difficult... (Interview)

Nevertheless, headteacher also said that he followed some techniques to maintain a balance between task demands and reality. He often walked through teachers' classroom during a lesson rather than doing formal classroom observation by sitting at the back of the class and completing an observation form. He said that such walking and 'peeping' into classes provided him with some learning that opens up a window for constructive discussion with teachers. He encouraged classroom teachers to do the same. The teachers were seen often leaving their class after assigning some tasks to the student and entering a colleague's class. However, during such visits, teaching related discussion was not evident. When they were asked what they did in their colleague's classes, they said that those were for a social chat. Yet, the teachers claimed that the visits often provided opportunities to discuss teaching practice later when they were in the staffroom. However, this study does not include evidence of any discussion that involved teachers' experience of observing a colleague's class.

In summary, the local and national education authority seemed to have a positive perception of collaborative professional development. They encourage teachers to conduct

lesson studies, observe colleagues' classes and conduct evidence-based discussions.

However, the insufficient economic benefit from the job and heavy workloads hindered this kind of in-school collaboration for professional development.

7.4 Teachers' personal experience

Teachers' life experiences play a vital role in their attitudes towards collaboration and eventually the nature of the collaborative activities they perform. Especially teachers' experiences as students during their educational life and as student-teachers during professional training have influenced the way they perceive and perform collaborative activities (Thornton, 2006).

The data showed that teachers were influenced by the way they were taught during their educational journey. A male teacher said:

I have seen one of my teachers who used to apply new things (methods) every time in his class in secondary school, I have seen my teachers using new methods. ...I take a teacher as my idol... I follow his style... I saw him discussing with his colleagues about his teaching... I think that helped him to identify good teaching methods... (Interview)

The teacher indicated that he was motivated by the practice of his teacher when he was in school. He had a positive perception of the impact of collaboration in teachers' professional development. This teacher was observed to be one of the most interactive teachers in the school. It seemed that his personal experience of his school life contributed to his interaction skill.

Similarly, another teacher said that she was encouraged by her father to have a good relationship with her colleagues. Her father was a retired teacher who served this school as a headteacher for several years. She said that her father always encouraged

her to continue a positive relationship with her colleagues because he thought frequent professional interactions help teachers' professional development. She said:

My father says, if you want to be a good teacher, you need to learn continuously, you can learn from your colleagues... (Follow up interview)

While teachers' positive personal experiences resulted in positive perceptions of collaboration, the traditional hierarchical culture seemed to contribute to teacher isolation. A teacher who came across the traditional isolated culture of the teaching profession was unlikely to interact with colleagues for professional development purpose. Moreover, a strong sense of hierarchy in the Bangladeshi context (Haque & Mohammad, 2013) keeps some teachers away from collaboration with junior teachers. Even mentoring, personal guidance provided to a novice teacher by a more experienced teacher (Ingersoll & Strong, 2011), was restricted in such cases. In this study, the most senior teacher in the school possessed a very high hierarchical sense and often refused to interact with junior teachers. In an interview, he said,

"I usually talk with the senior teachers if needed... I believe in work rather than talk... I do not like wasting time by talking..." (Follow up interview)

By saying this, he indicated a sense of hierarchy, and that being a senior teacher, if he discusses professional matters with junior colleagues, that may hamper his higher position. He was rarely observed to be asking for help or engaging in joint work with junior teachers during the data collection period. His tone of response and behaviour indicated that he kept a distance from junior teachers. Such behaviour has been described as an ego issue in a previous study (Rahman, 2019) and is a barrier to teachers' collaboration. In this study too, this teacher was observed to be the least collaborative.

7.5 Chapter Summary

Data presented in this chapter indicates that the teachers' collaboration in the site of this research was influenced by the wider culture and traditions in which the teachers live. Teachers were observed to have a high sense of hierarchy and that increases the power distance between the most senior and junior teachers as well as between the education officials and teachers. Such a distance restricted collaboration between the senior teacher and others. The distance of power between officials and teachers restricts teachers' professional discussions as they did not want to go beyond what they were instructed to do by the officials. The social construction of gender roles put female teachers at a disadvantaged position for formal and informal collaboration. Firstly, female teachers do not want to be engaged in any disagreement with male colleagues as that may be seen as a social taboo. Secondly, while male teachers meet each other out of the school frequently after school time, they have more opportunity for social and professional interaction, female teachers do not have such advantages. The social construction of gender has made a line between the types of collaborative tasks male and female teachers are engaged in. All the activities that require teachers to go out of the school are assigned to male teachers while female teachers mostly engaged in desk-based works. Strong social cohesion was observed which means the social community of the teachers and the professional community of practice overlap. Professional discussions were often embedded in their social interaction. Liminal space (shift of focus of discussion between social and professional aspects) is evident.

The organisational regulation and interpersonal relationships among colleagues were also determining factors in the nature of teachers' collaborative activities. The workplace environment impacted both positively and negatively on teachers' collaboration. Some regulations in the school (e.g. sharing lessons) enhanced professional collaboration while the workload, shortage of teachers and resources restricted professional discussions.

However, the relationship among colleagues and the staffroom sitting arrangement positively contributed to overall collaborative activities. Local and national support for teachers (e.g. salary, for professional interaction) were reported to be insufficient by the teachers.

Teachers and their perceptions of collaboration were also affected by their educational and cultural experiences. Positive personal and anecdotal experience of collaboration fostered a positive perception of teachers towards collaboration while the experience of traditional hierarchy restricted a teacher's collaboration.

Chapter Eight- Discussion

8.1 Introduction

This study has addressed three main research questions. First, what are teachers' perceptions of collaboration? Second, what is the nature of teachers' collaboration? Third, what factors affect teachers' collaborative activities in a school? The intention was to understand the ways in which teachers collaborate together in a school, and how particular factors interact in that context to enable or constrain such collaborative behaviours. It was assumed that the findings may contribute to a deeper understanding of teachers' natural day-to-day collegial collaboration in ways which might practically strengthen school-based teacher professional development models that often emphasise contextual learning (Damjanovic & Blank, 2018; Vescio, Ross, & Adams, 2008).

The two previous chapters outlined the findings of this study. The findings illustrate three significant aspects of teachers' collaboration. First, the data reveal a teachers' perspective of collaboration which offers an alternative viewpoint to the existing conceptions of teachers' collaboration. Secondly, the nature of the Community of Practices (CoP) has been discussed and how the nature of the CoP inform collaboration is unpacked. Many of the behaviours teachers demonstrated, could not really be seen as constituting a COP—as they were not purposefully addressing specific goals (such as improving teaching and learning) or action-orientated (they did not result in changes in professional practice). Finally, this study explored how wider cultural factors influenced and shaped teachers' collaboration. How the wider culture of the society promoted and hindered collaboration is described in light of four cultural dimensions.

In this chapter, those findings are discussed in light of existing literature (discussed in Chapter 3) and the theoretical aspects (discussed in Chapter 4). Towards the end of this

chapter , the role of a Critical Realist ontology in helping to validate the findings is discussed.

Specifically, Section 8.1 discusses teachers' perspectives of collaboration. In this section, what teachers understand by 'collaboration' and how the understandings are shaped are discussed. The theory of affordance is employed to help understand why teachers think about collaboration in this way. By comparing these findings with the existing understandings of collaboration this section attempts to offer an alternative of existing definition.

Section 8.2 discusses the nature of teachers' communities of practices (CoP) and the practices within those communities. To do so, the domain teachers belonged to, the nature of the communities teachers involved in and their interactions within the communities were discussed. Such analysis helped to understand the nature of teachers' collaboration within the context and the reasons behind these.

Section 8.3 illustrates how cultural aspects promote and hinder teachers' collaboration. The cultural dimensions identified by Hofstede (2009) were useful for explaining the relationship between teachers' cultural construction of different aspects (e.g. power, gender) and the collaborative actions of the teachers.

Finally, Section 8.4 draws on the social structure of the school and teacher agency and the interplay between the two to explain how the knowledge presented in this thesis was produced.

8.2 A teachers' perspective of collaboration

As indicated in the literature review (Chapter 3), previous studies were influenced by the definitions of teachers' collaboration which have been developed by the academics and researchers themselves. In those studies, certain ways of working together were considered as teachers' collaboration. Other aspects of collaboration, such as the interpersonal

relationship between teachers, and teachers' agency are not given as importance as the visible joint actions of teachers in these research.

Teachers' collaboration in the academic discourses are typically presented as a set of formal joint activities that focus on job related action and professional development (Berry et al., 2005; Danielowich, 2012; Dunne et al., 2000; Englert & Tarrant, 1995; Fielding, 1999; James, Dunning, Connolly, & Elliott, 2007; Kelchtermans, 2006). Although in scholarly writings, it has been suggested that relationship was an important aspect in collaboration, the empirical studies largely deal with prescribed and set up formal activities.

For instance, studies have explored teachers' beliefs concerning the conditions necessary for (e.g. (Doppenberg, Bakx, & Brok, 2012; Goddard & Kim, 2018; Vesikivi, Lakkala, Holvikivi, & Muukkonen, 2018)) and, purpose and benefits of (Berry et al., 2005; Danielowich, 2012; Dunne et al., 2000; S. H. Liu, 2017) collaboration. In all these studies, the definition of collaboration was provided by the researcher or academics. Teachers' own understandings of the meaning of collaboration have not been explored. These studies showed a top-down approach to defining and studying teachers' collaboration.

In contrast, this current study has explored what teachers meant by collaboration, the ways in which they felt collaboration was important, when and with whom they felt comfortable to work jointly. In this study, teachers emphasised both the social and emotional benefits and the professional effects. These teachers also reported that collaborative work with colleagues helped them to develop professionally as well as socially and economically.

Teachers referred to professional, social and emotional engagement with their colleagues as collaboration. When they defined 'collaboration' they pointed out all the activities they did together with their colleagues as collaboration for their mutual benefit. These benefits were defined by the teachers themselves and not restricted to professional matters.

They indicated that due to resource and time constraints, they were not able to perform the formal set of activities that are encouraged by the teachers' development agencies. For instance, the local authority and international teacher development programmes promoted peer classroom observation, modelling lessons and constructive formal discussion on the experiences. The teachers said that they rarely had a chance to perform those activities. However, they said that they served the purpose of such activities through informal social conversations and engagements, such as lunchtime discussion or out of school social meetings. Thus, any social engagement with colleagues was also perceived as part of collaborative practice by the teachers.

Through such responses, teachers indicated that they were not very concerned about the purpose of collaboration in relation to their professional development. They considered their social conversations as collaboration. In fact, the data showed that teachers mostly engaged in social interaction within the school. Hence, the way they perceive collaboration is aligned with the way they discuss/work jointly. However, such interactions are mostly without any professional development goal and purpose which often recognised as collegiality by many scholars. The findings about teachers' perception of collaboration suggest that they need support to use these collegial spaces for collaborative professional development.

Nevertheless, teachers' responses indicate that teachers' collaboration in a school was grounded in their agency, interpersonal relationships and contextual demands. This suggests that teachers themselves identified when and how to interact with colleagues for their social and professional development. Such an approach to collaboration ensures active participation (Canonigo, 2016; Krammer, Rossmann, Gastager, & Gasteiger-Klicpera, 2018; Wang, 2010). Yet, the teachers need to be trained to make use of their agency for collaborative learning.

Moreover, the benefits of teachers' autonomy for collaboration include positive professional outcomes as well as teachers' interpersonal development, such as providing moral support, reducing uncertainty, increased teacher confidence (A. Hargreaves, 1992). As portrayed in Section 6.2, teachers indicated that through collaboration they received emotional support from their colleagues in both professional and personal matters. This, they claimed helped them overcome problems which might otherwise lead to burnout. However, Krammer et al. (2018) suggest that it is not guaranteed that if teachers are allowed to select members for their collaborative group, there will be a positive effect of collaboration on their teaching.

Although the positive interpersonal relationships among teachers in this current study provided scope for spontaneous and context-based collaboration and the teachers believe that those social interactions served the purposes of formal collaboration, such collaborations had a very limited focus on their teaching. The data indicated that teachers' discussions and activities that were related to teaching-learning aspects mostly involve problem identification. They rarely went on to consider how the problems identified might be solved by changes in their professional practice, attitudes or understanding. For instance, a teacher indicated that in one class she could not manage the children and they did not listen to her. Although she posed this issue in front of her colleagues and that triggered a spontaneous discussion, no-one suggested any possible solutions..

Yet, this level of collaboration contributes to breaking the isolation of teachers (Hadar & Brody, 2010). The data indicate that the social cohesion among teachers make them feel like a family (see Section 6.2 on teachers' perception of collaboration). Such feelings eliminated their social isolation and may have helped them to move to a deeper level of the community. In such a deeper level, according to Hadar and Broody (2010) teachers reflect on each-others practice, document knowledge and improve teaching practice through using that knowledge.

As discussed in Chapter 3 (Section 3.3), Hadar and Brody (2010) developed a three-stage collaboration model in which teachers move from ‘isolation breaking’ stage to ‘teaching thinking’ stage through ‘professional development’ activities. The way teachers presented their views of collaboration and the collaborative activities observed indicate that teachers successfully established the first stage and were moving towards the second stage.

Nevertheless, data in this study does not provide any evidence that teachers were moving towards the next stage. In their conversations, reflection was rarely found and documentation of knowledge was not found to be evident during the data collection period. It seemed that the perceived (in many cases, real) lack of time and resources were the restriction for teachers to move forward to the second stage.

The teachers in this study strongly perceived that they did not have ‘enough’ time for formal (i.e. structured and organised) collaboration. Their daily routine supported their claim. Yet, they were observed to spend time together during lunchtime and other spare time in school (even during classes, they assigned tasks to the students and took a small break in the staffroom) and after the working hours outside of the school. According to the teachers, these breaks relieved them from the tight work schedule. Teachers were observed creating a space for professional discussions within those breaks (though those dialogues rarely had any clear objective). These spaces could have been useful for moving towards the second level of collaboration through skill development, documentation of knowledge and implementation of those skills (Hadar & Brody, 2010) in their teaching.

Such activities, eventually, may create the ground for the third layer where they can develop professionally through a higher order of functioning and consists of acquiring dispositions towards teaching thinking, a sense of accomplishment and a feeling of efficacy. However, teachers were found to maintain the status-quo and remained in the first level of Hadar and Brody’s model.

Nevertheless, the teachers' understanding of collaboration revealed in this study should not be undermined. It showed how teachers' agency and the context contribute to the nature of teachers' collaborative activities. First, it showed teachers tend to work closely with colleagues who were similar to their age, experience and understandings. Teachers were unlikely to collaborate with colleagues of an older age, more experience or having a conflicting personality. This finding echoed Jao and McDougall's (2016) research that suggested that teachers were wary of working with colleagues whom they did not connect with on a personal level. So, an imposed collaborative activity (e.g lesson modelling) may not be effective for teachers' collaborative learning unless they had or were willing to develop a personal relationship. Rather teachers should be helped to develop skills for using collaboration for their professional development and empowered to decide the aspects and ways they want to collaborate.

Secondly, the data indicate that teachers engaged in collaborations which were grounded in the context and in their interest. They tended not to participate in collaborative activities which were constituted by external agencies, even if those were enforced by an authority. For instance, teachers were found spontaneously forming teams (see 6, Section 6.3.1 on 'Planned collaboration') when the need arose. In contrast, the planned collaborative activities suggested by the local and central authority and other teacher development agencies were rarely found in the school. Neither lesson study nor classroom observation was found to be happening during two months of the data collection period. The teachers claimed that they did not have time for those activities. It was also understood that the teachers tended to perform collegial interactions and did not tend to move towards goal and action-oriented collaboration.

The reason behind this was what Gibson (1986) called an *affordance*, what an environment or a situation offers to a person. A person may consider an action against an event, object or person according to its affordances. The person's perception and action

towards the event or object would depend on the need of the person and what the event or object could offer to serve the need. To explain the perceptions and actions of an individual using the concept of affordance in a given the context is important (A. Hargreaves, 2001; Kelchtermans, 2006; Stoll, Bolam, McMahon, Wallace, & Thomas, 2006). Without considering the context, what an event or object offers to an individual would be difficult to explain.

For example, in the case of this current study, to explain the affordance of events and persons for collaboration perceived by a teacher, the context of the school needs to be taken into account. The formal collaborative activities promoted by national and international agencies are considered by teachers to be important (Rahman, 2019). Yet, teachers in this study perceived that they had very limited time for such collaborative activities. Hence, in spite of being considered as highly important, these formal activities had a low affordance to the teachers. In contrast, the informal lunchtime talk, peeping into colleagues' classroom and other social interactions were considered as more valuable joint activities to the teachers. This is probably because the teachers were not provided with a framework (to guide them to engage in professional goal-oriented collaboration) of collaboration within their tight schedule.

Similarly, the most senior teacher in this school was not considered as a suitable colleague for collaborative activities because of the personal attributes of that teacher (which was not very collaboration friendly, discussed in the Chapter 6). Moreover, the cultural norms (characterised by social respect and sense of hierarchy) reduced his affordance to other teachers in the school. The senior teacher could have been considered as a mentor but the personal traits (influenced by the sense of hierarchy) of the teacher and the cultural norms (high respect to superior person) presented him as less collaborative to his colleagues.

As Gibson (1986) noted, an event or object could have several affordances, but how a person perceives that or acts upon that may depend on what it could be used for in its

available condition and in the given context. Whether a colleague was considered as mentor or peer or non-collaborating colleague may depend on the personal attributes of both parties (the perceiver and the perceived) and the historical relationship between them. In summary, teachers in this study believed that the joint activities they did with their colleagues, no matter whether those include professional or social aspects, constituted collaboration. They also believed that their professional and social lives were overlapped to the extent that they could not be separated from each other. Their professional lives were so embedded in their social lives that social interactions often shifted into professional discussions. Teachers also indicated that joint activities which were necessary and doable within their limited time and resource were collaborations for them. Although teachers claimed that through collaboration they grew socially and professionally, and it was evident that they supported each other socially and emotionally, the link between their collaboration and professional development was weak. However, teaching-learning related discussions and activities took place occasionally (even the co-teaching provision did not lead them to a frequent collaboration on pedagogy).

Yet, this has implications for local and national policy. That is, what they considered as collaboration for their development and whom they considered as suitable colleagues for collaboration may depend on the dynamics of their relationship and their perception towards the event and the person. These dynamics of the relationship and the perceived affordances were best understood by the teachers themselves rather than any external agency, be it local, national or individual. Krammer, Rossmann et al. (2018) describes similar findings. They suggest that self-selection of the teammate in a teaching team is helpful for establishing compatible teaching teams. Hence teachers themselves could be given the autonomy to decide what they were to collaborate on, when and with whom to do so. However, teacher-education systems need to include strategies that help teachers to be aware of the role of collaboration and provided with a framework and skills to perform

effective collaboration for professional development (Themane & Thobejane, 2019).

Moreover, teachers might also be trained on how to identify professional development goals and how they can work collaboratively to attain the goal. For this, further research is needed to find how teachers could be helped to build upon these collegial relationships to adopt more purposeful and action-orientated collaborative behaviours.

8.3 Teachers' community and CoP

This current study revealed the nature of teachers' collaboration in a government primary school in a developing country context. Whilst there is a plethora of studies that investigate the benefit of teachers' collaboration and the way collaboration can be initiated and sustained (Avalos, 2011; Bredo, 1975; Breen, 2006; Brodie, 2013; Butler et al., 2004; Butler & Schnellert, 2012; Clement & Vandenberghe, 2000; Cranston, 2009; Cullen, 2006; Englert & Tarrant, 1995; Friend & Cook, 1992; M. Fullan, 1995; Hedegaard, 1998; Little, 1999, 2003; Retallick, 1999; Rhodes & Beneicke, 2002; M. Ronfeldt et al., 2015; Stoll & Louis, 2007; Thornton, 2006), the way teachers collaborate in a school is relatively unexplored. This current study investigated the nature of teachers' collaboration. To do so, the nature of the Community of Practice (CoP) within the school, the domain the members of the CoP belonged to, the interplay between the community in general and the CoP, and the nature of interaction among the members were analysed. These helped to understand how teachers work together, what they work on jointly and what makes them work in that way.

Analyses of the data indicate that there was an overlap between teachers' social community and their professional community of practice (CoP) (Lave & Wenger, 1991). Although it may be argued that a social community was not always a CoP, some of the groups that formed socially may have acted as CoP's (characteristics of a CoP is described earlier in Section 4.2). The teachers in this school belonged to several groups based on their purpose and interest. Most of those were not professional but social, such as a

cooperative group (described earlier in Section 6.2.1). Teachers were also engaged in collective endeavours for students' learning and the school's reputation and that endeavour was part of their professional CoP. Additionally, being from same local area, all the teachers in this school belonged to the same wider social community. Their day-to-day aspects of the social community (e.g. social problems, norms and culture) interact with their professional CoP. The relationship among the participant teachers were based on more social cohesion than professional practice. The group of the teachers displayed more characteristics of a community than a CoP. For instance, they know each other on a family level and are attached by strong social cohesion. However, there is a lack of goal-oriented actions (practice) which might make the community a CoP.

Nevertheless, they brought their social matters in their professional conversations and they had professional conversations in their social space (e.g. tea stall). In some conversations, they frequently shifted from social to professional matters. Because of this overlap in their social and professional practices, it was difficult to identify the effects of social and professional collaboration on the TPD. Thus, the CoP of the teachers in this school displayed its complexity.

I attempted to understand the nature of the community and the practices within it to analyse the nature of teachers' collaborative interactions. I assumed that this understanding could help to foster existing collaborative practice to support teachers' professional development in context in a more sustainable way.

An analysis of the formal and informal (I am calling those planned and unplanned collaboration respectively, the explanations for this was provided in Chapter 6) collaborative activities of the participating teachers indicated that these two types of collaboration interacted with each other, which agreed with findings of some existing studies (Eldor & Shoshani, 2016; Mawhinney, 2008; Thornton, 2006). For instance, the current study shows that there was a relationship between planned and unplanned

collaboration. The unplanned collaborations, much of which were social interactions or conversations, strengthen the relationships (e.g. solidarity) among teachers which encouraged teachers to be engaged in planned collaboration (e.g. ad-hoc basis teaming or collaboration for performing routine administrative tasks). At the same time, the planned collaborations that existed in this school were grounded in the interpersonal relationships of the teachers. For instance, teachers were observed teaming and taking responsibilities for routine management works and ad-hoc tasks even on a day off. The headteacher indicated that this happened because teachers were devoted to the school and had a good relationship with colleagues, otherwise they would have not been engaged in teamwork so spontaneously. This devotion was associated with the teachers' identity as 'teacher' of that particular school. Such identity creation was fostered by the unplanned joint discussions.

Conversely, the headteacher suggested that the ad-hoc basis and routine collaborative activities (planned collaboration) strengthen the collegial and social relationships among the teachers which eventually contributed to teachers unplanned collaborative activities. Through unplanned collaboration, teachers were observed to be strengthening solidarity with colleagues and teachers in general, redefining their understandings about the content they teach and the process they follow for teaching, creating shared impressions of students and forming a shared leadership in the school. However, the data indicated that the unplanned collaborations (mostly social interactions) were more frequent than the planned professional learning activities. Yet, there was interplay between social and professional collaboration. This analysis showed that there was an intricate tangle of teachers' social and professional life.

The nature of a community of practice can be understood by analysing three aspects as *domain*, *community* and *practice* (Wenger & Wenger-Trayner, 2015). A domain provides a space to the member of the community to be engaged in a shared interest. While a domain was a space, a community is the agency to make the space lively. A space with its

members was not a community of practice but *practice* among the members was necessary to make it a CoP. In this study, I tried to understand the three characteristics of the teachers' CoP within the school where I conducted my study. An understanding of these three characteristics helped me to unpack the nature of the teachers' collaboration. For instance, within the wider domain and community of the teachers in this particular primary school, there appeared to be various overlapping sub-groups (of domains/communities/practices), defined by particular sub-tasks or goals within the school. The interplay of interactions among the different communities reveals the what, how and why of teachers' collaboration.

Moreover, when Lave and Wenger discussed the concept of CoP, they emphasised the position of a member of a community, his/her identity within it and the legitimacy they have for participation. Analysing the position of the teachers, the identity they hold and the legitimate power for participation they possess helped to understand the way they interact with colleagues.

8.3.1 Domains

A domain was a group's identity that defined by a shared area of interest (Patton & Parker, 2017; Wenger & Wenger-Trayner, 2015). A membership within a CoP implies a shared interest within a domain and a commitment to that domain.

In this current study, teachers' conversations showed that the teachers belonged to a domain that was powered by three different but overlapping identities: first, the identity as teachers in general; second, as a staff member of the specific school and third, as the members of a same social community. The first was a wider professional domain, second was a specific context-based professional domain and the third was a wider social domain. These domains were not individual entities but nested within each other. This follows Wenger (2011), who points out that community of practice was a constellation of domains within a domain. The following discussion explains the nature of the domains and the interplay among them.

The wider professional domain, where the members considered themselves as teachers in general, was characterised by a higher-level solidarity and greater unity. They considered themselves as a distinguished community from the other agencies in the society. In their emotional expressions, in their frustrations and in their joy, they established their identities as teachers. They sympathised and spoke up for all the primary teachers in the country and they were proud of the contribution that primary teachers made to the education system of the country. Collaboration in this wider professional domain mostly involved strengthening the identity and solidarity and raising issues with the broader education system. No professional development-oriented activities emerging from the identity within the wider domain were evident. Thus, the group of teachers portrayed characteristics of a social community more than a CoP.

In contrast, a specific professional domain (from now on, I will refer to this as the school domain), offered teachers a platform for teaching-learning (and socialising) related collaboration. In such a domain, teachers considered themselves as members of this specific school. The teachers showed pride in being a member of staff in this school, became concerned about the students in their school, identified their needs through spontaneous collaborative discussion and compared their practices with the neighbouring schools. Teachers were observed expressing their sense of superiority over the neighbouring school or other relevant agencies such as PTI and non-government organisations (as discussed in Chapter 6). They pursued a shared goal which was to ensure the success of the school from which they derived a sense of success and superiority to staff in other schools. At this domain, teachers showed features of a CoP, however, those features are very scarce.

While the shared goals made the teachers members of the specific professional community of practice, teachers belonged to smaller subdomains within this domain. Several groups were observed which consisted of different combinations of individual teachers. These

sub-domains were aimed at accomplishing particular professional and social purposes. The social interests were also found to be conducive to professional growth. As the findings show, through social interactions, teachers strengthened solidarity and brought social aspects into their professional life. For example, teachers were observed discussing their own children's education and eventually starting to compare their practice with the practice of their children's school. Hence, the knowledge within an organization not only produced by the professional community of practice rather different domains brought different aspects of the knowledge. In a constellation of communities of practice, each community took care of a specific aspect of the competence that the organization needs (Wenger, 2011, p. 4 p.4)

Teachers belonged to a wider social domain because a school was not an island separated from the mainland of the society. A community of practice in a school was characterised with intricate, embedded interaction inside and outside the organisation (M. G. Fullan, 2005). In most of the previous studies, a school was considered as an organisation and teachers were treated as professionals who were considered as individuals focusing on their professional practices (Cravens, Drake, Goldring, & Schuermann, 2017; Doppenberg et al., 2012; Kuh, 2016; Y. Liu, 2019; Murugaiah, Azman, Thang, & Krish, 2012). Previous studies considered the professional space within the school as the context. The social space was rarely taken into account. The data in this study indicate that teachers were engaged in different social interaction with their colleagues within and out of the school. They debated on social and religious issues, formed a co-operative (explained earlier in Section 6.2.1), went to a social event together and engaged in other social interactions during lunchtime and over a cup of tea in local stall after school. These were mostly social spaces but there were professional interactions too. For instance, teachers talked about specific students' attainment during a social chit-chat in a tea stall after the school time. Yet, in these spaces the teachers demonstrated very little goal oriented actions.

Nevertheless, the social space has an impact on professional behaviour such as collaboration. For instance, a female teacher said that she did not speak to the male teachers unless it is really necessary (noted in Chapter7). The social norms brought into the school by the teachers invoked the aspect of gender into the professional space. The social construction of *gender* makes the female teacher think that a confrontation with male teachers from her husband's locality may be seen as a taboo. Hence, the social segregation of male and female roles (this is further discussed in later part of this chapter especially in Section 8.4.4) has made some of the benefits of community applicable only to men. However, this school, like almost all government primary schools in Bangladesh, has a higher proportion of female teachers (8 female and 4 male) and social interaction among female teachers were very frequent. In the professional context, thus, a female teacher has a professional identity that calls for a professional communication whereas her personal and family identities hinder the professional communication. The complex interactions between the identities had blurred the line between social community and professional CoP.

Often the social and professional domains of the teachers were very strongly overlapped. Both cultural norms and administrative provision bear some responsibility for this overlapping of the domains. Teachers in this study, no exception to any primary school in Bangladesh, were observed to have a strong social relationship with colleagues, students, parents and other members of the society. In fact, they perceived their identities as teachers of a school in a society to be prestigious and they maintained their behaviours, inside and outside of schools, in a way so that their prestigious position in the society was not hampered. Burton et al. (2019) found a similar scenario when they analysed a teacher's life in rural Bangladesh.

The way a teacher, in this context, perceives her/his social position, works as a pull factor for the boundary of the professional domain of a teacher. Not only the teachers' perception but also the attitudes of members of the society towards a teacher act in a similar way.

Although they are not members of the CoP of teachers, they can influence the way the teachers CoP works; in a similar way customers influence the way of a tailor's work by their demand.

In the school, the professional domain overlapped and merged with the day-to-day social domain. The majority of the studies in the area of teachers' collaboration had considered the teachers' community as a distinctive group in a society. For instance, the studies that saw teachers as members of community of practices, discussed their shared goal, leadership, responsibility and belief (Carpenter 2018, Allen 2013, Haver, Trinter et al. 2017). In such studies, teachers' community of practices were viewed as separate entities from the society and attempts were made to establish a link between society and school (i.e. teachers' community) (Furman, 2019). However, findings from this current study indicate that the boundary between the social domain of the teachers and their professional domain was very blurred. Social factors were heavily influential on the way the members of teacher's community interacted with each other. A number of social aspects were found within the professional domain. For instance, family relationships among teachers brought family dimensions into their conversation; the gender aspect determined the labour division among the teachers; cooperation among teachers made a sub-culture within a group of teachers and so on. This is expressed in the diagram below.

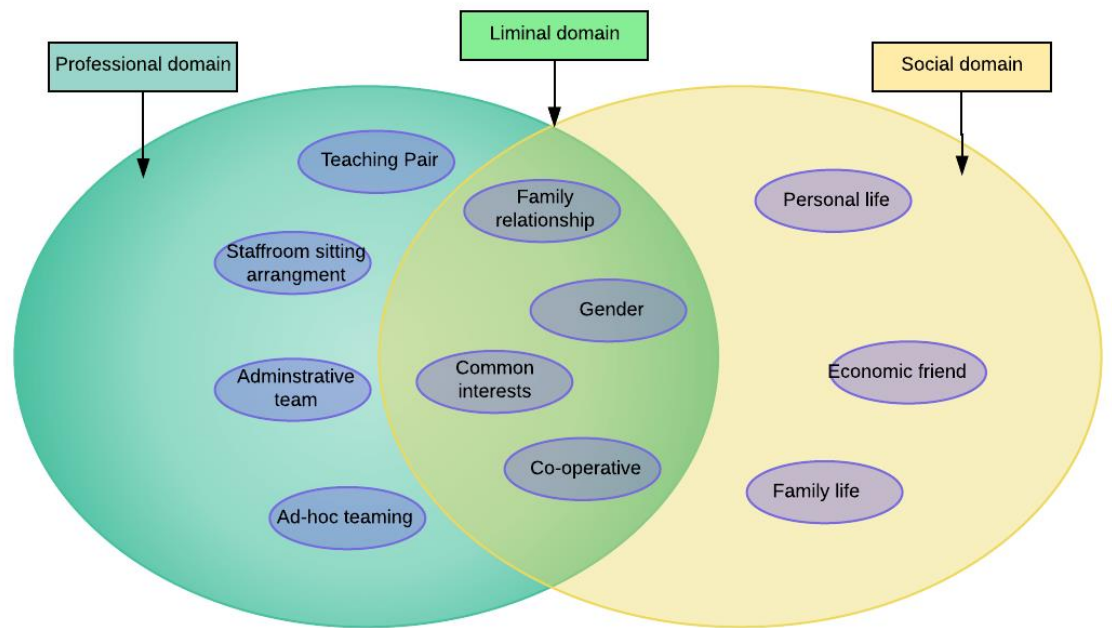


Figure 13: Overlapped professional and social domains of teachers

The Venn diagram above illustrates how teachers’ professional and social domains overlap. The domains are fluid and have some common space. Extending the concept of ‘Liminal Space’, I call this overlapped domain a ‘Liminal Domain’. Teachers’ professional and social identities are merged in this common domain. This liminal domain pulls the professional domain towards the social domain and vice versa. Hence, the professional domain is widened.

As the social domain interacts with the professional domain in the liminal space, social construction of different phenomena, examples of which would include both collaboration and gender, influence their behaviour within their professional practice. This is why teachers perceive collaboration as ‘help’ in general, rather than as a specific tool of continuous professional development. The segregation of work that arises from the social construction of gender and restricts female teachers from going outside of the school premises is discussed (p. 206).

In addition to this, as the professional domain widened, its aims and objectives were also broadened but became vague to some extent. In fact, the goal of a school as an organisation

often appears as theoretical and unreal in general across the world (Lambert, Bullock, & Milham, 1970). In Bangladeshi schools, although there was no study as such, the sense of the goal of a school seemed even vague. Teachers' interests and commitment to the professional domain was often hard to identify. Within the collaborative discussions and actions, professional matters were often submerged under other social concerns. Narrower domains, such as professional subgroups (i.e. subject department), might have helped to focus the aims and objectives of joint ventures but in primary schools, there were no subject-based departments. The subject departments produce sub-cultures (Goodson, 1990) which are more specific goal-oriented than a wider school culture in general. In this studied school, a teacher's identity was as a teacher in general rather than an English or maths teacher. This lessened the focused interaction within the wider domain of the school. In contrast, teachers were in subgroups according to their similarity of social interests (e.g. members of a co-operative joint venture), which were closely related to their day-to-day out of school social lives. The more the sub-domains were practical, the stronger the interest and commitment were. For instance, the findings suggest that the group of teachers who were involved in a cooperative were more action oriented in their interaction. When teachers were placed in specific task related team (e.g. exam arrangement or installing projector in the multimedia room) they became more focused in their discussions. The implication of this finding is that teachers become more focussed when they were part of a sub-group with clearly defined professional tasks and goals (e.g. preparing marking strategies for formative assessment in a specific grade, or installing a particular piece of IT equipment) (Friend et al., 2010; Musanti & Pence, 2010). Even in the informal discussions, teachers can learn if they can focus on the goal of the discussion as through such discussion teachers' tacit knowledge was distributed among individual members of a professional community (Y. Liu, 2019).

Another implication of these findings is that teachers should be made aware of the power of collaboration in the context of their school. When teachers consider themselves as teachers in general, they already have a strong cohesion. As seen in the data, they expressed empathy to the teachers' community in general and spoke out for them frequently. There was already a structure, space and mechanism for teachers' collaboration at policy level, but these seemed to have a low impact on teachers' motivation for co-learning. At the individual and school level, the role of the collaboration for professional development was latent, teachers understood that collaboration could help them professionally but how they could use that potential was often not recognised. So, teachers may have benefitted from a better understanding of how collaborative activities, even informal ones, could provide a platform for professional learning.

8.3.2 *The community*

The core characteristic of a community of practice is engagement (Wenger & Wenger-Trayner, 2015). A neighbourhood might often be called a community but it is not a CoP unless members interact and learn together with a shared goal. The teachers in the school studied had a multifaceted engagement within the school through social, professional and personal interactions. Unlike the sense of isolation in Western educational institutes, which was often discussed in the literature, the teachers in this school were seen to have a high social attachment with each other. They call the teachers' community a *family*. The data show that teachers felt shared social responsibilities as a member of the local society as well as a teacher of this school. While they engaged themselves in discussion and debate about the wellbeing of their society as a general member, they also acted as members of the school society. They talked about the education system and other sectors in general and about the teaching-learning context of their school specifically. Through their professional and social conversations, they learn constructed and reconstructed knowledge. Their conversations and joint activities indicated their engagements in the CoPs.

Buchanan et al. (2013) suggested that teachers in an Australian school suffered from physical, geographic, professional and emotional isolation. Physical isolation was the feeling of being alone in the classroom without the support of another teacher; geographic isolation related to deployment in rural school where there were fewer opportunities for collegial interaction outside the school; a teacher felt professional isolation when s/he might be the only teacher of a subject in a school; and emotional isolation involved not succeeding and not admitting to needing help or wanting to ask for it.

In the school where this current study took place, like other Bangladeshi primary schools, despite having a shortage of staff, teachers enjoyed a high social cohesion. This could be seen as working against the sense of isolation except for the physical isolation in a classroom. The teachers were from the same area as the school and could meet colleagues from their and other schools outside of the school hours. The interactions that took place outside of the school were often brought to the school which offer them a social bonding beyond their profession.

However, while social engagement was observed to be very strong, the professional engagement, especially pedagogical interaction, was somewhat weak. The only way professional learning seemed to be happening, in this school, was through co-teaching (preparing lesson together and formative evaluation) and through occasional unplanned collaborative discussions. Thus, the teachers' group in this appeared as a strong social community. However, professional engagement within the community was very little. Yet, professional aspects were embedded in their day-to-day social interactions. In their conversations, liminal spaces (Czarniawska & Mazza, 2003; Meyer & Land, 2005) were evident (as noted in Chapter6), which indicated that the professional lives of the teachers were profoundly embedded into their social life and the other way around. It also suggests that teachers were consciously and subconsciously engaged in their professional CoPs.

Such engagements (be it social or professional) are crucial for collaboration (Friend and Cook, 2010). People could be organised together to achieve a goal collaboratively and tasks could be distributed amongst the participants. This might be seen as a superficial collaboration (Vangrieken, Dochy, Raes, & Kyndt, 2015) that often diminishes as soon as the target is achieved or even before the goal is met. School is an organisation where teachers continuously face changing situations and goals. To achieve goals, one-off collaboration is not enough, rather there needs to be a collaborative culture amongst them. For such a culture, an engaged CoP is essential. This study highlights the social engagement amongst and the teachers in the school and how professional engagements were embedded within it. It suggests further research on how this social space can be used to foster a professional collaborative culture.

8.3.3 Practice

In a CoP, members develop a shared repertoire of resources: experiences, stories, tools, ways of addressing recurring problems—in short, a shared practice (Wenger & Wenger-Trayner, 2015). In this current study, data show that teachers were engaged in formal and informal interactions which included both action and social interactions. Teachers were observed to plan lessons together, determine formative assessment strategies and mark test papers together. They were also observed to be engaged in social interactions that seemed strengthened their solidarity to their identity as a teacher, restructured their knowledge, helped creating students' image and shared leadership. The later were not often conscious practices, but these had a shared goal and mutual endeavour towards the goal. The goals were often latent. However, according to Wenger, even though the practice of a CoP has a subconscious objective, learning happens. She argues that in the course of all these subconscious conversations, members of a CoP may develop a set of stories and cases that have become a shared repertoire for their practice. For instance, in this school, teachers were often observed sharing stories about their students' behaviour and responses in exam

papers. Consequently, these teachers created a shared understanding of individual and group of students.

Beside these professional practices, teachers were engaged in several social activities within the school which grouped the teachers into sub-communities. Although not all these communities are CoP, some of them were either CoP or conducive to other CoPs.

For instance, four other teachers had an informal co-operative where they jointly invested in buying a plot of land. The members of such sub-community said that they had a better understanding with the members of the sub-community than others.

Although these practices were not directly linked to their professional development, they were shared practices. These created spaces for safe discussion and frequent social interactions. Such spaces form a base of a CoP which helps the teachers to break isolation and develop a safe space for engagement within the community (Hadar & Brody, 2010).

Within this space frequent social interaction among the members of the CoP allow on-going dialogue, individual and group reflection, systematic action, and mutual respect (Tannehill, Parker, Tindall, Moody, & MacPhail, 2015) which leads them to a professional connection, eventually resulting in improved professional practice. Thus, this study suggests that to draw the collaboration towards a professional development activity, teachers' capacity for identifying professional goals, critical thinking and systematic action need to be developed. These might help them to participate in collaborative activities more effectively.

However, effective participation may depend on teachers' positions within the community (Lave & Wenger, 2013). Their existing skill, network and achievements are also factors, altogether termed as symbolic capital (Bourdieu, 2011a), which influence their ability and motivation for collaboration.

8.3.4 Symbolic capital and collaboration

The ability and agency for participation in a CoP is influenced by the symbolic capital of a member of a CoP (Doherty & Dickmann, 2009). The symbolic capital of a teacher is the cumulative weight of his/her social status, the network s/he has, the economic resources s/he possesses and the rule about the field s/he knows. In the social space of the school in this current study, the most senior teacher had a higher social status than other teachers, and thus, the symbolic capital of this senior teacher can be considered as higher than others. His position in the social space was more advanced than other teachers (Addi-Racah & Grinshtain, 2017; Kingston, 2001). Nevertheless, his participation was limited, and other teachers seemed not to be interested to be engaged with him for a joint activity. One of the reasons behind this relationship between symbolic capital and participation is the agency of the teacher, he does not want to be engaged in collaborative tasks.

Another reason revealed by the data was that the interpersonal relationships were shaped by the cultural norms. As the senior teachers had taught some of his current colleagues, this historical relationship acted as a barrier (as explained in Chapter 7) for interaction between the experienced teacher and his colleagues.

The third reason was, being senior to the headteacher through age and experience, this teacher enjoyed greater freedom than others, he could go out of the school whenever he wanted with minimum restriction from the headteacher. This allowed him to be engaged in different communities and CoPs. His freedoms often created conflicts between this teacher and other teachers. In such a situation, teachers tended not to engage with him. (Jao & McDougall, 2016) suggest similar findings, concluding that teachers tend not to work jointly other teachers with whom they have personality conflict.

One the other hand, the most collaborative teacher was one of the junior teachers. By experience and length at the job, his social status was lower than the experienced teacher in the 'field' of this school. His academic qualification was the same as the experienced teachers. However, he had greater technology (IT) expertise than the other teachers, and he

was more approachable and open with his colleagues. This teacher's personal traits were more valuable in contributing to his relationships with colleagues than the other types of capital.

8.4 Culture and collaboration

In previous studies, when the factors that influence teacher collaboration have been researched in most cases, organisational level factors (Bredo, 1975; Cohen et al., 1979; Forte & Flores, 2014; Kwakman, 2003) and/or personal level factors (Heikkinen et al., 2012; Kwakman, 2003; Lofthouse & Thomas, 2017) are the focus. Organisational level factors include the workplace culture, the structure of the system, collegial relationship, etc. Personal level factors include professional and psychological aspects of teacher collaboration. For instance, some studies indicated that teachers' freedom for collaboration and school leadership were found to be significant factors contributing to teachers' collaboration (Canonigo, 2016; Castro Silva et al., 2017). Personalities of team members also contribute to the extent of engagement of the teachers in a collaborative team (Jao & McDougall, 2016). In these studies, the reference to the wider culture of which teachers are members, was very limited.

While this study shows that organisational and personal factors are important, the findings also indicate that the influence of the day-to-day social norms and values cannot be ignored when researching the ways in which teachers interact with their colleagues. The degree to which teachers are involved in professional and social interaction, and the colleagues they tend to work jointly with, are influenced by cultural norms. This is because a school is a social institution. It acts as an agency for social change (T. Parsons, 2007), and society, in turns, shape the practices in the school (Feinberg & Soltis, 2004). While teachers help students' socialisation, teachers themselves bring the social aspects into their workplace. This study reveals that the social conditions of teachers (e.g. economic status) influence their practices in and out of school. For instance, dissatisfaction with their salary led teachers to be engaged in additional income-generating activities, such as private tuition.

This resulted in teachers leaving schools as soon as they finish their last class. The lesson study activity scheduled after the last class, thus, was not operational.

Not only the specific social condition related to the teachers but also the ubiquitous and inherited cultural norms influence teachers' collaborative behaviours. As indicated in Chapter 7, hierarchy, a mentionable cultural feature influenced teachers' choice of colleagues for collaboration. The cultural construction of *gender* was also found to be a significant factor that influenced the type of tasks male and female teachers do and the engagement of female teachers in the collaborative activities.

However, 'culture' is too wide a concept to discuss as an influential factor for teachers' collaboration because any aspect of teachers' life can be part of the culture in which they live. The day-to-day personal and professional lives are part of and influenced by the social norms and values. Society is a place where the norms, values and customs create a complex network. Influence of the culture on an aspect of society is thus difficult to understand. In this current study, the teachers' collaborative activities were found to be shaped by the traditional sense of hierarchy, respect to superiors, a cultural understanding of the capability of female teachers, cultural customs regulated by gender construction and the closely knitted social bond among the teachers.

A four -dimension model of culture⁹ pioneered by Hofstede et al. (2010) is useful for explaining the effect of cultural aspects on teachers' collaboration. According to Hofstede, Hofstede, and Minkov (2010), culture is the collective programming of the mind that distinguishes one group of people from another. It is the day-to-day life of a society and

⁹ There are two more dimensions found later namely *Long term orientation, how every society has to maintain some links with its own past while dealing with the challenges of the present and future and Indulgence, the extent to which people try to control their desires and impulses*. The first was not much relevant in this study. First, Bangladesh has an intermediate score at 47 for Long term orientation, which does not indicate a strong preference in either direction. For the second Indulgence, Bangladesh has a very low score of 20 which means people tend to control their desire. This was helpful to explain why teachers did not want double shift even though they might have a bit more relaxing schedule. They feared that in double shift teachers will have more time outside of classroom and thus they might be transferred to a school where there is shortage of teachers. As culturally they tend to control their desire, they rather decided to keep one shift.

includes codes of manners, dress, language, religion, rituals, art and literature, norms of behaviour, lifestyle, value systems, and traditions and beliefs (Haque & Mohammad, 2013). Hofstede et al identifies four dimensions of culture such as 1) Power distance, 2) Uncertainty avoidance, 3) Individualism vs. collectivism and 4) Masculinity vs. femininity. These dimensions are useful to explain how cultural factors influence teachers' collaboration because these dimensions explained the wider cultural aspects. Moreover, Hofstede et al ranked countries according to these dimensions, and Bangladesh was part of this ranking and has different score for different dimensions. Hence, to explain Bangladeshi culture and its relationship with teacher collaboration these dimensions are useful. Note that the data in this current study are not tested against the cultural dimensions and the index of the countries, but the dimensions are being used to explain how wider cultural factors are associated with the collaborative practices of teachers in the studied school.

8.4.1 Power distance

The society that the school was situated in was characterised by a high degree of respect to people perceived as superior in terms of hierarchy, status, and rank in an organization. Such a hierarchy in Bangladeshi rural contexts is evident in previous studies too (Haque & Mohammad, 2013; Thornton, 2006). Hofstede et al called this characteristic a 'power distance' that refers to the degree of inequality among people and the extent people accept the unequal distribution of power in a society. Hofstede et al surveyed 76 countries worldwide and developed an index of cultural dimensions. In this index, the highest score for Power Distance is 113 (Malaysia) and lowest is 11 (Austria), Bangladesh scored 80. This means that Malaysia society has the highest degree of hierarchy and Austria has the lowest, whilst hierarchy in Bangladesh is moderately high (scored 80).

In Bangladeshi society, with such moderately high power-distance index, subordinates are more dependent on and afraid to express disagreement to their superiors. This dependency is one-sided. Subordinates depend on superiors for a decision and are unlikely to be interdependent for making decisions.

According to Haque and Mohammad (2013), (Haque & Mohammad, 2013) (Haque & Mohammad, 2013) people in Bangladesh have a propensity for a higher degree of dependency on and respect and fear of their superiors. The superiority may be related to their social status, rank in an organisation or even age. As discussed earlier in the 'context' section of this document, the sense of hierarchy was strong in the Bangladeshi social culture which eventually flows to the organisational culture. In this study, the findings show that there was a distance between relatively senior and junior teachers. Dependency on a superior was seen only when there is an administrative activity.

Joint work and discussions were scarce between the senior and junior teachers (here seniority was based on age and length of teaching experience, not an organisational position). This was due to the high level of respect given to the senior teachers. Even if they engaged in any discussion, the junior teachers mostly agree with the senior teachers. Professional arguments were unlikely between them. According to Cohen, Deal et al. (1979), such power differences in team members cause superficial collaboration and instability in collaborative teams (Cohen et al., 1979). The conversations between the senior teacher and other teachers also reflected the effect of the power distance.

The power distance between teachers and education officers from the local authority is also a characteristic in Bangladeshi education context (Thornton, 2006). The data in this current study also revealed similar findings. Teachers hardly dared to upset the education officers by any of their activities. Instructions from education officials were highly regarded by teachers and restricted their motivation for collaboration. This impacted on teachers' collaboration on innovation in their teaching. As the teachers were provided with a 'teacher

guide' by the central education authority and enforced by the local education officers, teachers did not tend to go beyond the instruction of the guide. As the guide included prescriptive lesson plans, teachers y did not come up with innovative teaching methods as that would require taking the risk of upsetting the education officers. However, the headteacher in this school was an exception. He broke the cultural norm of hierarchy and was an accessible manager to the teachers.

While the sense of hierarchy was a cause of not being creative in planning and implementing lessons, it seemed that teachers did not tend to discuss teaching learning issues with colleagues because of not having a structured provision (no official framework and allocated time for doing that) and time for that.

8.4.2 Uncertainty avoidance

The tendency for risk-taking was reduced within communities where there were larger power distances. Such a tendency is referred to by Hofstede et al (2009) as the second cultural dimension. In a society with a high uncertainty avoidance index, people are less likely to take a risk. Bangladesh ranks fairly high with a score of 60 on Hofstede's Uncertainty Avoidance Index. (The highest uncertainty avoidance index is Greece with a score of 112, the lowest in Singapore with a score of 8.) This suggests that the members of Bangladeshi society often feel uncomfortable due to the power distance with superiors and have a tendency of avoiding any uncertainty and take less risk. This cultural feature has a negative impact on the collaboration of teachers since a collaborative endeavour involves risk-taking (Avalos, 2011). In general, to avoid uncertainty, collaborative work between a senior and a junior teacher is limited. Examples of this were evident in the current study, where teachers avoided engagement with senior teachers as that would have been deemed too risky.. In cases where the team included the senior teacher as a member would be coercive in nature. For instance, as discussed in Chapter 6, a junior teacher who was paired with the most senior teacher had to carry out most of the work within the pair.

An imbalance relationship (Cohen, 1976), fear (e.g., hesitation about how to go along, respect, value) of communication with colleagues due to perceived power distance (Da Fonte & Barton-Arwood, 2017) and coercive situations (Canonigo, 2016) affect negatively on teachers' collaboration as was evident in the findings..

The higher uncertainty avoidance index could also explain why teachers did not want to turn the school into a double shift one (discussed in Chapter 7). They always felt that if they had spare time for co-planning and other joint works, they might have been transferred to another school where there was a greater shortage of teachers. Such an uncertainty contributed to reducing the spaces (time and opportunities) for collaboration.

Although culturally the uncertainty avoidance tendency was high in the teachers, which negatively impacted on their collaboration, an uncertain and challenging situation was reported as a contributing factor by the teachers. This echoes Cohen's (1976) study. This can be explained by the collectivist nature of the culture.

8.4.3 Individualism vs. collectivism

Teachers' tendency for collaboration in challenging situations could be explained by the social cohesion teachers in Bangladesh have. Regardless of the degree of responsibility of a teacher in the school, in difficult situations, teachers were observed to help each other to overcome the challenge. Hofstede called such tendency a *collective* culture. The opposite of a collective culture is an individualistic culture (Hofstede, 2009). In Hofstede's index, the most individualistic society is the USA (which scored 91) and the most collectivist society is in Guatemala (with a score of 6) Bangladesh scored 20 and is a more collectivist society.

In an individualistic society, people are more concerned about their personal initiative and achievement rather than collective concerns. In such cultures, people tend to satisfy the interest of themselves and their immediate families. The wider society, cohesion and

kinship are not the immediate concern of the members of an individualistic society (Haque & Mohammad, 2013; Hofstede et al., 2010). An individualistic workplace is characterised with strong and specific job responsibility, mostly contractual nature of job and self-interest. An employee would hardly go beyond their job specification in such work culture. In contrast, a collective culture places the members in a strong and cohesive group where people are concerned of the members of the wider community. The concerns involve both promoting the wellbeing of as well as interfering into the life of other members. According to Hofstede, in a collectivist society, members abide by the rules and norms set by the extended family (the society) and that causes a dense network of kinship. Similarly, the collectivist workplace is characterised by the personal relationship among the employees and they often get involved with one another's tasks and take responsibility for their contributions.

Bangladesh has a closely knit rural society which is largely characterised by a collectivist culture (Haque & Mohammad, 2013). The social norms and values set by the Samaj (society) are highly influential in the lives of the society members (Akand, 2003; Roy, Syed, & Uddin, 2014). These norms and values on one hand, set a higher power distance, on the other hand, promote the perception of the importance of cohesion. These are undoubtedly reflected in a school workplace. The effect of power distance was described earlier. This section draws on the effect of close-knit society and the cohesion among the members on the nature of teachers' collaboration.

In this study, the cultural cohesion enabled teachers to become involved in their colleagues professional and social lives with minimum hesitation. Moreover, such family level communication made their professional and personal lives overlap. These overlapped domains of professional and personal life might have made the professional aspects pervasive but subconscious. In the discussion of the teachers a liminal space (noted earlier in this chapter) is evident in the data. This has implications for school-based teacher

development (SBTD) models. Such models often struggle to establish a formal collaborative culture in a school. In a context like this current study, teachers practice collaborative discussion frequently but they often do not consider those as potential learning practices. Teachers need to be aware of the potential of their day to social and professional interaction for their professional development. Such awareness has been advocated by some scholars (A. W. Parsons, Ankrum, & Morewood, 2016; Themane & Thobejane, 2019).

8.4.4 Masculinity vs. femininity

While the high social cohesion was found to be a conducive cultural feature for teachers' collaboration, a high distinction between male and female roles restricted collaboration in the school. In Bangladesh, women still have limited access in social and economic activities. This culture is considered to be a masculine culture by Hofstede. The last dimension of his model is masculinity vs femininity. In his index, the most masculine society is in Slovakia, with a score of 110, and the least is in Sweden, with a score of 5. Bangladesh scored 55 having a moderately masculine society. In rural Bangladesh, where this study took place, the masculinity index appears even stronger, as per my experience.

In a masculine society, more emphasis is given on the segregation of gender roles, i.e., traditional roles for, and belief in the inequality of women, as well as paternalism.

Bangladesh is considered to be moderately masculine and one of the reasons is purdah - religious and cultural practice of concealing women from men. This practice is a tradition among both Muslims and Hindus, the majority in Bangladesh. Although Haque and Mohammed (2013) suggest that this practice is accountable for keeping women excluded from mainstream development activities, in primary education section this scenario is hugely different. The percentage of female teachers in primary schools is more than 64 percent (BANBEIS, 2017) and the government has always encouraged women to join primary teaching (e.g. by lowering the required entry-qualification). Additionally, in recent

decades, the legal and social status of women in other sectors has improved as gender parity in education, economic activities and social aspects is an important item on the agenda of both government and non-government agencies. Nevertheless, the long standing traditional masculine culture, especially in rural Bangladesh, defines the relationship between male and female teachers as well as their collaborative activities (Tasnim, 2006).

The data in this study indicate that there was a distinction between the tasks performed by female teachers and male teachers. While male teachers are assigned all the out of school work, female teachers are assigned the desk-based tasks. Male teachers have more contact time with colleagues than female teachers. Male teachers spend more times outside their home after school hours than female teachers. As a result of these differences, male teachers became engaged in more socio-political discussion than female teachers which they eventually bring into school hours. The data indicate that male teachers' discussions in the staffroom included more social matters, such as teacher union activities, changes in local education authority, local and national politics etc. In contrast, female teachers' discussions were mostly about family matters, and classroom teaching. Hence, teachers' involvement of outside world influences the topic of their conversations and formation of teams.

The following table summarises the factors affecting teachers' collaboration using Hofstede's cultural dimensions.

Table 14: Relationship between cultural dimension and teachers' collaboration

Effect of Hofstede's cultural dimensions on teachers' collaboration				
Dimensions	Description	Status of Bangladesh	Positive effects on collaboration	Negative effects on collaboration
Power Distance	The degree of inequality among people and the extent people accept the unequal distribution of power in a society	High power distance index		Teachers do not engage with senior teachers, mentoring restricted
Uncertainty avoidance	The cultural tendency to feel uncomfortable with uncertainty and risk in everyday life	High uncertainty index	Work more jointly when there is an uncertain situation arises. Collaboration is seen as a way of sharing (and therefore diminishing) the risk and providing emotional support in uncertain situations.	Do not feel comfortable talking to senior teachers Teachers tend to avoid the uncertainty of relocating, so do not want a shift school. The tendency to do so takes away the need to collaborate to find new solutions.
Individualism/Collectivism	The extent people are concerned about their personal initiative and achievement.	Strong collectivism	Less hesitation in getting involve in each-others' work. Greater collectivism linked to increased solidarity and overlapped professional and personal life that produce liminal space	
Masculinity	Cultural importance on the segregation of gender roles.	Moderately masculinity		Female teachers' active engagement restricted

8.5 Understanding teachers' collaboration in a critical realist ontology

The focus of this research study has been to explore the nature of teachers' collaboration in the context of a Bangladeshi primary school. The study aimed to investigate how teacher collaboration was understood in this particular context, how collaborative activities are exercised, and what mechanisms shaped the understanding and the exercise of teachers' collaboration. A Critical Realist ontology made it possible to analyse the three levels of knowledge, namely: the empirical (observable and measurable), the actual (accessible through interviews and observations) and the real (the underlying causal mechanisms which give rise to the observable events) (Tikly, 2015). It also helped to analyse the emergence of teacher collaboration, how it is inhibited or enabled, how structures interact with agency and how teachers as active agents create spaces, in a sometimes unpromising environment, for an autonomous action.

Within the CR paradigm, I am not necessarily looking for repeated confirmations of an event (triangulation), rather using its potential to understand the causal factors, such as teachers' agency and social structures, and relationships between them (Bygstad et al., 2016).

The data shows that teachers, in this particular context, collaborate largely informally. As shown in Chapter 6, the collaborative activities were mostly on an ad-hoc basis, unorganised and grounded in the context. Most of the activities did not have a specific short term and action oriented visible goal but were characterised by a wider goal—retaining and gradually increasing school success (e.g. gaining higher pass rates in public exam). The knowledge produced through their joint endeavours were not well managed and those often did not have a direct implication on their professional activities, such as classroom teaching.

Nevertheless, their professional aspects were embedded in their joint activities and the liminal spaces within their conversations are the evidence of how their professional and

social aspects overlap. Their joint discussions and activities show that the boundary between the professional community of practice and the domain of their social community is blurred. They pull the domain of their CoP towards the domain of their social community that connects the members with social and cultural bonds and vice-versa. These were all observable events which Bhaskar (2013) (Bhaskar, 2013) calls the empirical level of knowledge. These events are the outcome of the agency of the members of the community, the social structure of the context, and the interplay between the two. What teachers believe about a phenomenon was an element of their agency (Wallace & Priestley, 2011). The findings of this study showed that teachers perceived 'collaboration' as a combination of 'help' and 'joint endeavour'. In this way, they perceive collaboration as social and emotional support as well as planned and goal-oriented collective professional endeavours. These perceptions resulted in more ad-hoc informal collaborative activities that involved both professional and social aspects.

The emergence of such perceptions was the result of an enduring social structure that consisted of social norms, regulations and culture. First, the meaning of collaboration perceived by the teachers is their social construction. The Bangla connotation of 'collaboration' is 'help' which may have had an influence on the perception of the teachers. Moreover, the social and organisational nature characterised with high social cohesion allowed teachers to interact frequently with colleagues outside of the school after school hours. The cohesive norms and culture attached them more socially. This is why the boundary between their social and professional life is very thin. It is often difficult to separate social and professional aspects of this context.

Additionally, local, national and global teacher development initiatives advocate collaborative learning. The teachers also echoed those ideas. According to the data, teachers considered collaboration to be essential for their professional development and better school operation. However, they perceived that they have very limited time and

resource to maintain formal collaboration. There could be two reasons for such claim. First, since the teachers really did not have much time out of their classroom, they were exhausted after teaching classes. The second reason could be that they felt something else was more important than collaborative professional development activities. During the data collection, it was observed that the teachers rushed out of the school doors shortly after the learners, either to do private tuition (to supplement their low salary) or to meet at the tea-stall (to get relief from their hectic work day). The social structure did not encourage them to perceive the greater importance of formal collaboration (e.g. performing lesson study) for their professional development. Yet, culturally teachers were attached to each other by a strong social cohesion which enabled them to work closely. Hence, they created informal spaces for collaboration. Lunchtime discussions, interactions before and after school hours were the spaces that allow teachers to work and discuss jointly with colleagues. According to the teachers, they transformed the social space (e.g. lunchtime) into a professional environment. This suggests they exercised the power to reproduce and transform their existing state of affairs (Emirbayer & Mische, 1998) even though the lunchtime discussions are mostly consist of social talk. Thus, it can be assumed that the interaction between structure and agency produces specific kinds of events that were informal ways of collaboration.

Teachers perceive 'collaboration' as 'helping' each other in professional and social needs within their capacity (i.e. availability of time and resources) and this reflects their agency. The data show that teachers offered and received such help, but the prevailing cultural norms, lack of time, resources and skills for professional collaboration often restricted their formal collaboration. Hence, teachers' collaboration, in this particular school, was mostly informal and those were shaped by both their agency and the social structure of the school and outside society. Thus, their collaborative activities can be explained by their agency and social structure and the interplay between this two. Hence, to implement a school-

based teacher development programme that incorporates the idea of teachers' collaboration, an understanding of the society and culture the school is located in is crucial. It is difficult to influence the culture of an organisation deliberately, but it can be influenced, and opportunities can be provided for individuals. Over time this may (and does) lead to cultural change e.g. OLA College in Ghana, (Harley and Simiyu Barasa, 2012) but that was not the immediate aim.

8.6 Chapter Summary

In this chapter, the findings of this study were discussed in the light of the theoretical framework that was described in Chapter 4 and the relevant literature which was presented in Chapter 3. The discussions in this chapter also showed how the findings offered answers to the research questions of this study.

First, teachers' perceptions of collaboration were discussed using the theory of Affordance and the results were compared with existing definitions of teachers' collaboration. It is argued that the way teachers in this study perceived collaboration deviates from the definition of collaboration found in existing narratives which are mostly from the global North. Since teachers in this study have very limited time for formal collaboration such as observing peers' classes, those have minimal affordance to them. Rather, they perceive the informal lunchtime talk, peeping into colleagues' classroom and other social interactions to be more valuable joint activities.

The chapter then discussed the nature of the teachers' CoP and explains how it informs the nature of their collaboration. The study suggested that teachers belong to social and professional and liminal domains. The liminal domain is the overlap of social and professional domains. Within the liminal domain, their professional domain becomes diluted by their social relationship and thus their professional collaboration tends to be more informal. The relationship among colleagues is explained by the concept of Symbolic capital in this chapter.

The effect of the wider and organisational culture has been explained in this chapter. Four cultural dimensions developed by Hofstede (2009) were used to explain the effect of cultural aspects on teachers' collaboration. It is argued that cultural hierarchy and the social construction of gender negatively impact on teachers' collaboration while the close-knit society allows teachers to engage frequently in joint work.

The chapter ended with the explanation of how a critical realist philosophy helped to understand the nature of teachers' collaboration and the effect of culture on it.

Chapter Nine: Conclusion

9.1 Introduction

This chapter concludes the thesis by providing a summary of the research (Section 9.2) and highlighting the key findings (Section 9.3). In this chapter, recommendations are proposed, based on the findings from this study, in Section 9.4 for teachers, headteachers, policymakers, teacher development practitioners (from local and international Non-government organisations) and future researchers in the area of teacher collaboration. Limitations of this study are discussed in Section 9.5.

9.2 Summary of the study

This PhD study explored the nature of teachers' collaboration in a rural government primary school in Bangladesh. The literature review suggested that existing studies explore teachers' collaboration as an externally imposed activity defined by academics and researchers who carried out studies in this area. Teachers' own understandings of collaboration, and studies of teachers' day-to-day collaboration in their social and school community networks, were rarely investigated. Studies that sought teachers' perceptions of collaboration mostly revealed that teachers considered collaboration, and TPD interventions based on collaborative learning, to be important.

Moreover, collaboration was positioned pragmatically as an influence on teachers' practice and students' attainment. Research studies that examined the link between collaboration and TPD and student achievements were often conducted in formal professional development situations, asking teachers to carry out new, collaborative activities. The wider context of the school and teachers' agency are often not taken rigorously into account. Teachers' perceptions of collaboration were also an under-investigated area. Perceptions influence actions (Dewey 1933, Bandura 1986) and thus it was important to know what teachers mean by collaboration. Yet, the context, including cultural aspects and teacher agency, were important when we look into the nature and the effect of teachers'

collaboration (Tilley 2000). The organisational and wider cultural situations are influential on the professional and social relationship among teachers.

The relationship among teachers is considered as crucial in many theoretical writings (Kelchternabs, 2006; Fielding 1999; Schon, 2017 Hargreaves, 2013, Friend and Cook, 2010) in the area of teachers' collaboration. Nevertheless, this aspect of collaboration is scarce in empirical research. The existing studies in this area mostly emphasise collaborative actions rather than the interpersonal relationships when examining the impact of collaboration on TPD and students' attainments. How the relationship between teachers contributes to the nature of collaboration and how collaborative activities influence relationships among teachers were yet to be analysed.

These findings from the literature review urged an investigation into the nature of collaboration in the daily life of teachers. A Critical Realist ontology was found to be useful for better understanding of the nature of teachers' collaboration because this philosophical standpoint allows combining human (teacher) agency and social structure (school and wider culture) and the interplay between the two to analyse a social phenomenon (collaboration) (Bhasker, 2013). An ethnographic approach to the research was adopted as the epistemological standpoint to gain an authentic understanding of teachers' agency and the social structure of the school (Nunan, 2003; Hammersley and Atkinson, 2007).

The Bangladeshi primary school provided a suitable context for such a study because, firstly, teachers' collaboration was unexplored in this context. Secondly, the rural Bangladeshi community was close-knit and characterised by strong social cohesion. From my professional experience, I knew that such features are evident in many teachers' communities. Such a situation was helpful to investigate the link between the nature of collaboration and the relationships among teachers. Moreover, the Bangladesh government is emphasising context-based collaborative learning (Directorate of Primary Education,

2015), and it was assumed that this study may inform policymakers and TPD professionals about the existing collaborative culture in the primary schools in Bangladesh.

Hence, a primary school in a rural area was chosen for conducting in-depth ethnographic research to understand the nature of teachers' collaboration. Two months were spent in the school (every school day) to collect data using a range of techniques including observation, interview and staffroom conversation recordings. An analysis of the data revealed the following significant findings.

9.3 Key findings

This PhD study responded to three research questions. The first research question was aimed at exploring the teachers' perceptions of collaboration. It was found that teachers understood collaboration as a matter of their day-to-day activities which was not restricted to the formal professional work they do together, but includes a range of informal professional, social, cultural, economic, political and emotional activities. Key findings are:

- ✚ Teachers believed that they were socially and professionally attached to their colleagues and help each other not only in professional matters but also in social and personal matters. They believed that collaboratively they grew professionally, socially and economically. They reported that they solved professional problems together (although such activities found very little during data collection), stood beside each other to provide social support and often jointly strengthened their economic status (e.g.in the form a cooperative joint venture). These findings were contributions to existing knowledge in the area of teacher collaboration. While existing empirical studies focus on the action-oriented collaboration, the interpersonal and social relational aspects were often overlooked.
- ✚ Teachers believed that organisational norms, leadership and specific situations regulate their collaborative actions. While some organisational requirements (e.g.

sharing one classroom in two different sections) were conducive for joint works, other requirements (e.g. tight daily routines, prescriptive teacher lesson guides) restricted collaboration. They believed that the headteacher played a key role in promoting a collaborative environment. However, the headteacher was not observed having any strategy to put into force the collaboration and collegial relationships.

According to teachers a challenging situation can trigger collaboration. These findings reflected some existing studies. For instance, (Cohen et al., 1979) found challenging situations conducive to collaboration in schools.

- ✚ Teachers believed that interpersonal relationships between colleagues are important for collaboration. They are unlikely to collaborate with a colleague they have a personality conflict with. A similar finding was revealed by (Jao & McDougall, 2016).

The second research question investigated the nature of teachers' collaboration. The data showed that teachers were involved in planned and unplanned collaborative activities with their colleagues within and outside of the school. Among these un-planned social interactions were predominant. The data also revealed the nature of the communities of practice of the teachers and suggest that the teachers' social community and professional community of practices are overlapped. Their professional practices were evident in their day-to-day social interactions and vice-versa. Notable findings of the nature of teachers' collaboration were:

- ✚ Both planned and unplanned collaborations were evident in teachers' day-to-day school activities, mostly unplanned social conversations. Planned collaborative activities are pre-determined goal-oriented and mostly initiated by the headteacher. Unplanned collaborations were spontaneous. Planned collaborative activities seemed to be enhancing collegial relationships among the teachers and

eventually contributing to unplanned collaboration. The unplanned collaboration, in turn, underpinned ongoing planned collaboration. Existing studies have largely dealt with organised, formal collaboration. Unplanned, spontaneous collaboration, based on social cohesion and mutual trust, is largely underexplored in the literature.

- ✚ Collaborative activities were found to occur regularly when driven by contextual need. Any imposed collaborative activities were less likely to take place as regularly as the one that emerged from contextual need. For instance, lesson modelling and peer classroom observation are required by local and central authorities, but, rarely happened. In contrast, teachers regularly collaborated with colleagues when they shared a single classroom, in order to keep classroom practice consistent. Canonigo (2016) noted similar findings and suggested that coercive collaboration may become superficial and operational. However, as there was no framework provided for collaboration, teachers tended to engage more in social interaction than professional goal-oriented actions.
- ✚ Teachers' understanding of how collaboration could be used as a tool for effective teachers' professional development and to boost student achievement seems under-developed. The teachers didn't say anything about how their non-formal collaboration might foster professional learning. These findings underpin a number of studies (Nouri, Cerratto-Pargman et al. 2011, Fischer, Kollar et al. 2013, Monteiro and Morrison 2014) that urged a framework for collaboration to ensure a desired result of collaborative activities.
- ✚ The group of teachers in this study demonstrated more characteristics of a social community than a CoP. They were engaged more in social interaction than discussions/actions that might serve the purposes of their professional development. However, their social and professional domains overlapped and

created a common ‘liminal domain’ where teachers’ social and professional identity reach a compromise. Social practices were pervasive in their day-to-day professional activities and vice-versa. In their professional life, a social space was evident. Similarly, professional space was found in their social interactions. These two domains are found to be fluid and to pull each other towards the common domain. This process makes the professional domain wider and the objective of the professional domain often gets blurred. As the social domain influences the professional domain, social construction of different phenomena, such as gender, influences the nature of teachers’ collaboration within and outside of the school.

Although many existing studies have looked into teachers’ collaboration through the lens of the ‘Community of Practice’ the interplay between different CoPs teachers may belong to (Wenger & Wenger-Trayner, 2015) within a school was not addressed. Hence, a unique contribution of this study was to suggest that teachers in a school belong to several domains (i.e. social, political and professional) ‘communities’ (these are not CoP as they often do not have shared vision) and ‘communities of practices’ and there was interaction between those that influence the nature of collaboration. For instance, this study showed that the social relationships among teachers made the collaboration more informal.

The third research question sought to understand the factors that influence teachers’ collaboration. The findings indicated that teachers’ collaborative activities were very much shaped by the wider culture, as well as organisational norms and regulations. While some of the social and organisational cultures promote teachers’ collaboration, others restrict it. Salient findings here are:

- ✚ The culture of the society in which the school was located had a significant impact on the way teachers collaborate with colleagues. This study suggested

that high power distance, high sense of financial and professional insecurity, traditional gender roles, and the collective culture of the society of rural Bangladesh all shape teachers' perception of collaboration and the way they collaborate with each other in the school. While existing studies focus on organisational factors, this study indicated that to understand and to promote teachers' collaboration, the wider culture also needed to be taken into account.

✚ The study revealed that gender was a crucial factor that influenced the nature of teachers' collaboration in Bangladeshi rural context. The cultural perception of gender roles led female teachers to engage in specific kinds of work (mostly desk-based and not outside the school premises) and often restricted their engagement in some in-school and out-of-school collaboration.

9.4 Limitations of this study

This study was carried out in a single primary school in a rural area of Bangladesh. Thus, the findings are not generalisable in the widely accepted sense of the word. Having said that, this in-depth study can reveal things that are generally true of people and places more broadly than just the participants and context of this specific study (Simons, 1996). As a cultural insider, I am aware that the context of government primary schools in rural Bangladesh (most of the primary schools are now government-operated) are widely comparable, especially the cultural and social structure of schools. Hence, it can be claimed that, although all the empirical findings may not be precisely the same in all schools, the mechanisms (e.g. school regulations, collegial culture) are similar. According to the Critical Realist paradigm, there are three levels of reality (Bhasker, 2013): empirical, actual and real. It is important to move from the surface (empirical) level to a deeper level (i.e. actual and real) because the deeper level is enduring and produces the surface level reality. In this study, not only have the surface level empirical events been taken into account but also the interaction between the teachers' agency (i.e. perception of

collaboration) and the social structures of the school and its environment (i.e. school and wider social-cultural aspects) is considered. Therefore, the generalisability in this study can be claimed at the actual level which can be more or less generalisable (Danermark et al., 2005) because teachers' agency and the socio-cultural situations in most rural primary schools are similar in Bangladesh.

Another limitation of this study is that there was no direct observation of teaching and learning processes or data on learning outcomes. What this means is that, although teachers seemed happy with the ways they saw themselves to be working together (e.g. talking about common problems without usually making plans to overcome them), it is difficult to say whether teaching and learning were affected by the kinds of collaboration observed outside the classroom.

9.5 Implications

The results of this study have implications for headteachers, educational policymakers and implementers in Bangladesh, and national and international teacher professional development agencies. This study also encouraged the potential future scope of research in the area of teachers' collaboration.

- ✚ Implications for headteachers: The data indicated that a less hierarchical and more collegial relationship between the headteacher and the teachers is conducive for collaboration. Hence, the headteachers of Bangladeshi primary schools, and other schools in similar contexts, should be aware of the effect of the hierarchical relationships on teachers' collaboration and endeavour to adopt a shared leadership style to promote collaborative learning. Data also indicated that a smaller group of teachers with a focused goal (e.g. preparing mock test paper, sharing lessons in a pair) collaborates more effectively than a large group of teachers. Hence, teachers can be sub-grouped for small tasks, such as identifying training needs, sharing

subject-based experiences and documenting discussions. At the same time headteachers need to set goals (Friend, Cook et al. 2010, Musanti and Pence 2010) for collaborative activities for teachers' professional learning and student learning.

- ✚ Implications for policymakers and implementers: The data indicated that making collaborative activities a requirement or a regulation does not ensure collaboration happens among teachers. Specific goals need to be set and time needs to be allocated within their daily routine for collaborative professional development activities. Monitoring and support for effective collaboration and professional development from the local authority (Upazila Education Officers) need to be in place.
- ✚ Implications for national and international TPD agencies: When designing school-based teacher professional development interventions in similar contexts to this study, such programmes should make teachers aware of the role of collaboration and build skills for effective collaboration for professional development (Themane and Thobejane 2019). When forming any collaborative group, the relational aspects between the members of a group need to be taken into account. Teachers should be allowed to select their group members themselves to avoid including a member who may pose personality conflict. The study suggests that teachers are already collaborating socially and interpersonally in and outside the school, and this cultural phenomenon can be taken into account in TPD programmes to make use of the collaborations. For instance, Initial Teacher Education (ITE) institutes such as PTIs and agencies that offer Continuous Professional Development (CPD) (e.g. local education authority and Upazila Resource Centres (URC)) may include, in their provision, content to promote professional collaboration that takes the social relationships between teachers into account. International teacher development

agencies should take the context rigorously into account when developing School-Based TPD models.

🌈 Implications for future researchers: While this study indicates that professional collaboration is embedded in the social space of teachers, these are not often utilised for teachers' professional development. It was understood that teachers needed to be supported to utilise these social spaces for their development. More research is needed to understand in what ways teachers could be helped to build upon these collegial relationships to adopt more purposeful and action-orientated collaborative behaviours. In particular, what could school leaders and other stakeholders do to support, motivate, and monitor such a shift to improve teaching and learning?

9.6 Chapter summary and final remark

The final chapter of this thesis summarises the motivation, context, methods and findings of this study. It also points out some recommendations for different stakeholders such as headteacher, teachers, policymakers, teacher educators, international agencies and future researchers. This study was aimed at understanding teachers' perception of collaboration, their day-to-day collaborative practices and factors that influence teachers' collaboration in a Bangladeshi rural primary school. It adopted a Critical Realist philosophy and an ethnographic approach to its investigation.

The data in this study revealed an alternative definition of teachers' collaboration to those to be found in the existing literature. Teachers think that they do not have much time and resource to engage in formal collaborative work such as observing peer classroom, lesson modelling and so on, so they try to meet the purposes of such formal collaboration through informal chat during lunch time and brief visits to colleagues' classes. Such perceptions on the part of teachers has challenged the definition of teachers' collaboration that have mostly been forged in the global North. This study's findings in respect of teachers' perceptions have raised the question of whether the conception of collaboration as defined

in the context of developed countries can be or should be transferred to the global South without sensitivity to context or culture.

This study found that the teachers in the school in which this study took place belong to two wider domains, the social and the professional. The domains are overlapped. I called this overlapped domain a 'liminal domain' where teachers' identities are fluid and shifting continuously between the social and professional domains. In this domain, the social identity of teachers exerts a pull on their professional identity and extends it into the social domain. For instance, in the school the teachers have a professional identity as teacher and colleague, they also have identity as each other's' neighbour, friends, business partner and relatives. The social identities helped them to break social isolation, however, the impact of that social cohesion on their professional development seemed to be scarce and rather diluted their professional collaborative practices.

The data also shows that the cultural characteristics of the society in which the school is situated have significant influence on the way teachers work together. The hierarchical power structure and the social construction of gender negatively impact teachers' collaboration. Teachers were observed to be less likely to engage in collaborative activities with senior colleagues and members of the other gender. The power distance between education officers and teachers led teachers to strictly follow a teacher guide provided by the central government office and therefore teachers tend to collaborate less for teaching planning.

The social construction of gender seemed to be highly influential on the way teachers collaborate. Female teachers were observed to be assigned to specific (mostly desk based) work whereas male teachers went for tasks that took them outside school. Female teachers did not have much opportunity to engage in after-school social gatherings in local tea stalls like their male counterparts.

Nevertheless, the collectivist society of rural Bangladesh made the teachers feel like a family within the workplace, which significantly reduced their sense of isolation. This isolation is often referred as a barrier for teachers' collaboration issue in the western narrative. This study shows that Bangladeshi rural primary teachers are equipped by an essential characteristic for spontaneous and effective collaboration among colleagues and that is social bonding. The trust they have between them is an important aspect of teacher collaboration. The teachers have the potential for collaborative learning because they already have the advantage of social cohesion. What is needed is the additional impetus of professional understanding of the role of collaboration and skills for engaging professional joint endeavour.

Bibliography

- Addi-Racah, A., & Grinshtain, Y. (2017). Forms of capital and teachers' views of collaboration and threat relations with parents in Israeli schools. *Education and Urban Society, 49*(6), 616-640.
- Akand, M. K. (2003). The Salish and Social Cohesion in Bangladesh Village: A Case Study. *South Asian Anthropologist, 3*(2), 163-176.
- Akiba, M., Murata, A., Howard, C. C., & Wilkinson, B. (2019). Lesson study design features for supporting collaborative teacher learning. *Teaching and Teacher Education, 77*, 352-365.
- Akinyemi, A. F., Rembe, S., Shumba, J., & Adewumi, T. M. (2019). Allocation of time in communities of practice: A strategy to enhance continuing professional teachers' development of high schools teachers'. *Cogent Social Sciences, 5*(1), 1583629.
- Aktinson, P., & Hammersley, M. (1998). Ethnography and participant observation. In N. K. Denzin & I. S. Lincoln (Eds.), *Strategies of Qualitative Inquiry* (pp. 248-261). London: Thousand Oaks: Sage.
- Alharbi, N. M., Athauda, R. I., & Chiong, R. (2018). Empowering collaboration in project-based learning using a scripted environment: lessons learned from analysing instructors' needs. *Technology, Pedagogy and Education, 27*(3), 381-397.
- Allen, D. (2013). Reconstructing professional learning community as collective creation. *Improving schools, 16*(3), 191-208.
- Amin, S., Diamond, I., Naved, R. T., & Newby, M. (1998). Transition to adulthood of female garment-factory workers in Bangladesh. *Studies in family planning, 185-200*.
- Asadullah, M. N. (2006). Educational Disparity in East and West Pakistan, 1947-71: Was East Pakistan Discriminated Against? : University of Oxford, Department of Economics.
- Ashton, P. T. (1990). Editorial. *Journal of Teacher Education, 44*(1).
- Ashton, P. T., & Webb, R. B. (1986). *Making a difference: Teachers' sense of efficacy and student achievement*. New York: Longman Publishing Group.
- Asian Development Bank. (2017). *Innovative strategies for accelerated human resource development in South Asia: teacher professional development: special focus on Bangladesh, Nepal, and Sri Lanka*. Mandaluyong City, Philippines: Asian Development Bank.
- Austin, H., Dwyer, B., & Freebody, P. (2005). *Schooling the child: The making of students in classrooms*. London: Routledge.
- Avalos, B. (2011). Teacher professional development in Teaching and Teacher Education over ten years. *Teaching and Teacher Education, 27*(1), 10-20.
- BANBEIS. (2017). *Primary Education*. Dhaka: BANBEIS Retrieved from <http://data.banbeis.gov.bd/images/ban02.pdf>.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. NJ: Englewood Cliffs.
- Bangladesh Bureau of Educational Information and Statistics. (2015). *Bangladesh Education Statistics, 2015*. Dhaka.
- Bangladesh Bureau of Educational Information and Statistics (BANBEIS). (2016). *Professional and Teacher Education* Dhaka: BANBEIS Retrieved from <http://banbeis.gov.bd/>.
- Bangladesh Bureau of Statistics. (2018). *Report on Bangladesh Sample Vital Statistics 2018* Dhaka.
- Banglapedia: National Encyclopedia of Bangladesh. (2015). Ghior Upazila Dhaka.
- Bantwini, B. D. (2019). Developing a culture of collaboration and learning among natural science teachers as a continuous professional development approach in a province in South Africa. *Teacher Development, 23*(2), 213-232.
- Battersby, S. L., & Verdi, B. (2015). The culture of professional learning communities and connections to improve teacher efficacy and support student learning. *Arts Education Policy Review, 116*(1), 22-29.
- Bernstein, B. (1964). Elaborated and restricted codes: Their social origins and some consequences. *American anthropologist, 66*(6_PART2), 55-69.

- Berry, B., Johnson, D., & Montgomery, D. (2005). The power of teacher leadership. *Educational leadership*, 62(5), 56-60.
- Bhaskar, R. (2013). *A realist theory of science*. Oxon: Routledge.
- Bishwash, & Shailendra. (Eds.). (1973) Shonshod Bangala Ovidhan. Kolkata: Shishu Shahittya Shangshad pvt. Ltd.
- Boissiere, M. (2004). Determinants of primary education outcomes in developing countries. *World Bank, Independent Evaluation Group (IEG), Washington, DC*.
- Bonati, M. L. (2018). Collaborative Planning: Cooking Up an Inclusive Service-Learning Project. *Education and Treatment of Children*, 41(1), 139-151.
- Bonner, A., & Tolhurst, G. (2002). Insider-outsider perspectives of participant observation. *Nurse researcher*, 9(4), 7-19.
- Boud, D. (2001). Using journal writing to enhance reflective practice. *New directions for adult and continuing education*, 2001(90), 9-18.
- Bouillet, D. (2013). Some Aspects of Collaboration in Inclusive Education-Teacher's Experiences. *Center for Educational Policy Studies Journal (CEPS Journal)*, 3(2), 93.
- Bourdieu, P. (1990). Structures, habitus, practices. *The logic of practice*, 52-65.
- Bourdieu, P. (2005). Habitus. *Habitus: A sense of place*, 2, 43-52.
- Bourdieu, P. (2011a). The forms of capital. In P. Bourdieu, S. Imre, & K. Timothy (Eds.), *Cultural theory: An anthology*. West Sussex: John Wiley & Sons.
- Bourdieu, P. (2011b). The forms of capital.(1986). *Cultural theory: An anthology*, 81-93.
- Bower, M., Lee, M. J., & Dalgarno, B. (2017). Collaborative learning across physical and virtual worlds: Factors supporting and constraining learners in a blended reality environment. *British Journal of Educational Technology*, 48(2), 407-430.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative research in psychology*, 3(2), 77-101.
- Bredo, E. (1975). Collaborative Relationships on Teaching Teams: Implications for Collegial Influence, Team Morale, and Instructional Practices. Technical Report No. 45.
- Breen, M. P. (2006). Collegial development in ELT: The interface between global processes and local understandings. In S. Gieve (Ed.), *Understanding the language classroom* (pp. 200-225). London: Springer.
- Bridwell-Mitchell, E., & Fried, S. A. (2018). Learning One's Place: Status Perceptions and Social Capital in Teacher Communities. *Educational Policy*, 0895904818802117.
- Brodie, K. (2013). The power of professional learning communities. *Education as change*, 17(1), 5-18.
- Bronfenbrenner, U. (1994). Ecological models of human development. *International encyclopedia of education*, 3(2), 37-43.
- Brookhart, S. M., & Freeman, D. J. (1992). Characteristics of entering teacher candidates. *Review of educational research*, 62(1), 37-60.
- Brown, J. S., & Gray, E. S. (1995). The people are the company. *Fast Company*. Retrieved from <http://www.fastcompany.com/magazine/01/people.html>
- Buchanan, J., Prescott, A., Schuck, S., Aubusson, P., Burke, P., & Louviere, J. (2013). Teacher retention and attrition: Views of early career teachers. *Australian Journal of Teacher Education*, 38(3), n3.
- Buchmann, M. (1984). The use of research knowledge in teacher education and teaching. *American Journal of Education*, 92(4), 421-439.
- Burton, S., Eyres, I., & McCormick, B. (2019). The Educational Context of Bangladesh. In I. Eyres, B. McCormick, & T. Power (Eds.), *Sustainable English Language Teacher Development at Scale*. London: Bloomsbury.
- Burton, T. (2015). *Exploring the Impact of Teacher Collaboration on Teacher Learning and Development*. (Doctor of Education), University of South Carolina Retrieved from https://scholarcommons.sc.edu/cgi/viewcontent.cgi?referer=https://scholar.google.com/scholar?hl=en&as_sdt=2005&sciodt=0%2C5&cites=16177090737164679133&scipsc=&q=Exploring+the+Impact+of+Teacher+Collaboration+on+Teacher+Learning+and+Development&btnG=&httpsredir=1&article=4103&context=etd

- Butler, D. L., Lauscher, H. N., Jarvis-Selinger, S., & Beckingham, B. (2004). Collaboration and self-regulation in teachers' professional development. *Teaching and Teacher Education, 20*(5), 435-455.
- Butler, D. L., & Schnellert, L. (2012). Collaborative inquiry in teacher professional development. *Teaching and Teacher Education, 28*(8), 1206-1220.
- Cajkler, W., Wood, P., Norton, J., Pedder, D., & Xu, H. (2015). Teacher perspectives about lesson study in secondary school departments: a collaborative vehicle for professional learning and practice development. *Research Papers in Education, 30*(2), 192-213.
- Canonigo, A. M. (2016). Using a non-coercive process to engage mathematics teachers in lesson study. *International Journal for Lesson and Learning Studies, 5*(4), 329-347.
- Carpenter, D. (2018). Intellectual and physical shared workspace: Professional learning communities and the collaborative culture. *International Journal of Educational Management, 32*(1), 121-140.
- Carter, K. (1993). The place of story in the study of teaching and teacher education. *Educational researcher, 22*(1), 5-18.
- Cassery, A. M., & Padden, A. (2018). Teachers' views of co-teaching approaches in addressing pupils with special educational needs (SEN) in multi-grade classrooms. *European Journal of Special Needs Education, 33*(4), 555-571.
- Castek, J., Coiro, J., Guzniczak, L., & Bradshaw, C. (2012). Examining peer collaboration in online inquiry. *The Educational Forum, 76*(4), 479-496. doi: 10.1080/00131725.2012.707756
- Castro Silva, J., Amante, L., & Morgado, J. (2017). School climate, principal support and collaboration among Portuguese teachers. *European Journal of Teacher Education, 40*(4), 505-520.
- Chan, K. H. (2009). Impact of intellectual capital on organisational performance. *The Learning Organization, 16*(1), 4-21. doi: 10.1108/09696470910927641
- Charteris, J., & Smardon, D. (2014). Dialogic peer coaching as teacher leadership for professional inquiry. *International Journal of Mentoring and Coaching in Education, 3*(2), 108-124.
- Chavez, C. (2008). Conceptualizing from the inside: Advantages, complications, and demands on insider positionality. *The Qualitative Report, 13*(3), 474-494.
- Clark, C. M. (1988). Asking the right questions about teacher preparation: Contributions of research on teacher thinking. *Educational researcher, 17*(2), 5-12.
- Clement, M., & Vandenberghe, R. (2000). Teachers' professional development: a solitary or collegial (ad) venture? *Teaching and Teacher Education, 16*(1), 81-101.
- Coffey International Development. (2012). Activity based learning, Ghana. Draft synthesis report for DfID. Reading
- Cohen, E. G. (1976). Problems and Prospects of Teaming. Research and Development Memorandum No. 143. Stanford, California: Stanford University, Center for Research and Development in Teaching.
- Cohen, E. G., Deal, T. E., Meyer, J. W., & Scott, W. R. (1979). Technology and teaming in the elementary school. *Sociology of Education, 20*-33.
- Conderman, G. (2016). How to collaborate through teams. *Kappa Delta Pi Record, 52*(2), 71-75.
- Contu, A., & Willmott, H. (2003). Re-embedding situatedness: The importance of power relations in learning theory. *Organization science, 14*(3), 283-296.
- Cozza, B. (2010). Transforming teaching into a collaborative culture: An attempt to create a professional development school-university partnership. *The Educational Forum, 74*(3), 227-241.
- Craig, C. J., You, J., & Oh, S. (2013). Collaborative curriculum making in the physical education vein: a narrative inquiry of space, activity and relationship. *Journal of Curriculum Studies, 45*(2), 169-197.
- Cranston, N. C. (2009). Collaborative decision-making and school-based management: challenges, rhetoric and reality. *The Journal of Educational Enquiry, 2*(2).
- Cravens, X., Drake, T. A., Goldring, E., & Schuermann, P. (2017). Teacher peer excellence groups (TPEGs) Building communities of practice for instructional improvement. *Journal of Educational Administration, 55*(5), 526-551.

- Croft, A., Miles, S., Brown, R., Westbrook, J., & Williams, S. (2017). Teachers Developing Knowledge in Low - and Middle - Income Countries. In M. T. Hughes & E. Talbott (Eds.), *The Wiley Handbook of Diversity in Special Education* (pp. 445). Chichester: John Wiley & Sons. .
- Cullen, K. (2006). An exploratory study of teachers' workplace relationships. *Educate*, 2(2), 50-58.
- Cunha Jr, F. R. d., van Kruistum, C., & van Oers, B. (2016). Teachers and Facebook: using online groups to improve students' communication and engagement in education. *Communication Teacher*, 30(4), 228-241.
- Czarniawska, B., & Mazza, C. (2003). Consulting as a liminal space. *Human relations*, 56(3), 267-290.
- Da Fonte, M. A., & Barton-Arwood, S. M. (2017). Collaboration of general and special education teachers: Perspectives and strategies. *Intervention in School and Clinic*, 53(2), 99-106.
- Damjanovic, V., & Blank, J. (2018). Building a professional learning community: teachers' documentation of and reflections on preschoolers' work. *Early childhood education journal*, 46(5), 567-575.
- Danermark, B., Ekstrom, M., & Jakobsen, L. (2005). *Explaining society: An introduction to critical realism in the social sciences*. London: Routledge.
- Danielowich, R. M. (2012). Other teachers' teaching: Understanding the roles of peer group collaboration in teacher reflection and learning. *The Teacher Educator*, 47(2), 101-122.
- Datnow, A. (2018). Time for change? The emotions of teacher collaboration and reform. *Journal of Professional Capital and Community*, 3(3), 157-172.
- Delamont, S., & Atkinson, P. (1980). The Two Traditions in Educational Ethnography: sociology and anthropology compared. *British Journal of Sociology of Education*, 1(2), 139-152.
- Desforges, C. (1995). How does experience affect theoretical knowledge for teaching? *Learning and Instruction*, 5(4), 385-400.
- Devlin-Scherer, R., & Sardone, N. B. (2013). Collaboration as a form of professional development: Improving learning for faculty and students. *College Teaching*, 61(1), 30-37.
- Dewey, J. (1933). *How we think*. Boston: Heath.
- DfID. (2018). Education Policy: Get children learning. London: DFID.
- Dinham, S. M., & Stritter, F. T. (1986). Research on professional education. In M. C. Wittrock (Ed.), *Handbook of research on teaching*. New York: Collier McMillan.
- Directorate of Primary Education. (1998). *Role of SMC for the development of the school (Biddalayar Sarbik Unnayane Managing Commitir Bhumika)*. Dhaka: Government of Bangladesh, supported by UNICEF.
- Directorate of Primary Education. (2015). Third Primary Education Development Program (PEDP-3) - Revised. Dhaka.
- Dobber, M., Akkerman, S. F., Verloop, N., & Vermunt, J. D. (2014). Regulating collaboration in teacher education. *Research Papers in Education*, 29(1), 69-92.
- Dodgson, J. E. (2019). Reflexivity in qualitative research. *Journal of Human Lactation*, 35(2), 220-222.
- Doherty, N., & Dickmann, M. (2009). Exposing the symbolic capital of international assignments. *The International Journal of Human Resource Management*, 20(2), 301-320.
- Doppenberg, J. J., Bakx, A. W., & Brok, P. J. d. (2012). Collaborative teacher learning in different primary school settings. *Teachers and Teaching*, 18(5), 547-566.
- Doumanis, I., Economou, D., Sim, G. R., & Porter, S. (2019). The impact of multimodal collaborative virtual environments on learning: A gamified online debate. *Computers & Education*, 130, 121-138.
- Dreyer, L. M. (2014). Exploring collaboration between mainstream and learning support teachers. *Education as change*, 18(1), 179-190.
- Dunne, F., Nave, B., & Lewis, A. (2000). Critical friends groups: Teachers helping teachers to improve student learning. *Phi Delta Kappan*, 28(4), 31-37.
- Dutta, B., & Islam, K. M. (2016). Role of Culture in Decision Making Approach in Bangladesh: An Analysis from the Four Cultural Dimensions of Hofstede. *Bangladesh e-journal of Sociology*, 13(2).

- Eldor, L., & Shoshani, A. (2016). Caring relationships in school staff: Exploring the link between compassion and teacher work engagement. *Teaching and Teacher Education, 59*, 126-136.
- Elster, J. (2015). *Explaining social behavior: More nuts and bolts for the social sciences*. Cambridge: Cambridge University Press.
- Emirbayer, M., & Mische, A. (1998). What is agency? *American Journal of Sociology, 103*(4), 962-1023.
- Englert, C. S., & Tarrant, K. L. (1995). Creating collaborative cultures for educational change. *Remedial and Special Education, 16*(6), 325-336.
- EPPI Centre. (2019). Why is it important to be systematic? . Retrieved 16/11/2019, 2019, from <https://eppi.ioe.ac.uk/cms/Default.aspx?tabid=69>
- Ernest, P., Guitert Catasús, M., Hampel, R., Heiser, S., Hopkins, J., Murphy, L., & Stickler, U. (2013). Online teacher development: Collaborating in a virtual learning environment. *Computer assisted language learning, 26*(4), 311-333.
- Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American journal of theoretical and applied statistics, 5*(1), 1-4.
- Feiman-Nemser, S., & Floden, R. E. (1984). *The Cultures of Teaching*. Occasional Paper No. 74: East Lansing, MI: Institute for Research on Teaching. .
- Feinberg, W., & Soltis, J. F. (2004). *School and society*. New York: Teachers College Press.
- Fielding, M. (1999). Radical collegiality: Affirming teaching as an inclusive professional practice. *The Australian Educational Researcher, 26*(2), 1-34.
- Fischer, F., Kollar, I., Stegmann, K., & Wecker, C. (2013). Toward a script theory of guidance in computer-supported collaborative learning. *Educational psychologist, 48*(1), 56-66.
- Fletcher, A. J. (2017). Applying critical realism in qualitative research: methodology meets method. *International Journal of Social Research Methodology, 20*(2), 181-194.
- Foley, D. E. (2002). Critical ethnography: The reflexive turn. *International Journal of Qualitative Studies in Education, 15*(4), 469-490.
- Fong, C., & Slotta, J. D. (2018). Supporting communities of learners in the elementary classroom: The common knowledge learning environment. *Instructional Science, 46*(4), 533-561.
- Forte, A. M., & Flores, M. A. (2014). Teacher collaboration and professional development in the workplace: A study of Portuguese teachers. *European Journal of Teacher Education, 37*(1), 91-105.
- Fraga-Cañadas, C. P. (2011). Building communities of practice for foreign language teachers. *The Modern Language Journal, 95*(2), 296-300.
- Friend, M., & Cook, L. (1992). The ethics of collaboration. *Journal of Educational and Psychological Consultation, 3*(2), 181-184.
- Friend, M., & Cook, L. (2013). *Interactions: Collaboration skills for school professionals* (7th ed.). London: Pearson.
- Friend, M., Cook, L., Hurley-Chamberlain, D., & Shamberger, C. (2010). Co-teaching: An illustration of the complexity of collaboration in special education. *Journal of Educational and Psychological Consultation, 20*(1), 9-27.
- Friend, M., Embury, D. C., & Clarke, L. (2015). Co-teaching versus apprentice teaching: An analysis of similarities and differences. *Teacher Education and Special Education, 38*(2), 79-87.
- Fu, G., & Clarke, A. (2019). Individual and collective agencies in China's curriculum reform: A case of physics teachers. *Journal of Research in Science Teaching, 56*(1), 45-63.
- Fujii, T. (2017). Using lesson study with teaching mathematics through problem solving. In T. McDougal (Ed.), *Essential Mathematics for the Next Generation: What and How Student Should Learn* (pp. 88-93). Tokyo: Gakugei University Press.
- Fullan, M. (1995). The school as a learning organization: Distant dreams. *Theory into practice, 34*(4), 230-235.
- Fullan, M. G. (2005). *Change forces-the sequel*. London: Routledge.
- Furman, G. (2012). *School as community: From promise to practice*. Albany: SUNY Press.
- Gee, J. P. (2000). Identity as an analytic lens for research in education. *Review of research in education, 25*(1), 99-125.

- Gergen, M. M., & Gergen, K. J. (2000). Qualitative inquiry: Tensions and transformations. *Handbook of qualitative research, 2*, 1025-1046.
- Gerrish, K. (1997). Being a 'marginal native': dilemmas of the participant observer. *Nurse researcher, 5*(1), 25-34.
- Gibson, J. J. (1986). The theory of affordances. In J. J. Gibson (Ed.), *The ecological approach to visual perception: classic edition* (pp. 127-143). London: Lawrence Erlbaum Associates.
- Gibson, J. J. (2014). *The ecological approach to visual perception: classic edition*: Psychology Press.
- Glewwe, P., & Kremer, M. (2006). Schools, teachers, and education outcomes in developing countries. *Handbook of the Economics of Education, 2*, 945-1017.
- Goddard, Y. L., Goddard, R. D., & Tschannen-Moran, M. (2007). A theoretical and empirical investigation of teacher collaboration for school improvement and student achievement in public elementary schools. *Teachers college record, 109*(4), 877-896.
- Goddard, Y. L., & Kim, M. (2018). Examining Connections between Teacher Perceptions of Collaboration, Differentiated Instruction, and Teacher Efficacy. *Teachers college record, 120*(1), n1.
- Godínez Martínez, J. M. (2018). How effective is collaborative reflective practice in enabling cognitive transformation in English language teachers? *Reflective Practice, 19*(4), 427-446.
- Goodson, I. (1990). Beyond the Subject Monolith: Subject Traditions and Subcultures in Westoby, A.(Ed), *Culture and Power in Educational Organisations*: Milton Keynes: Open University Press.
- Green, J. L., Skukauskaite, A., & Baker, W. D. (2012). Ethnography as epistemology. *Research methods and methodologies in education, 309*.
- Greenhalgh, T., & Peacock, R. (2005). Effectiveness and efficiency of search methods in systematic reviews of complex evidence: audit of primary sources. *Bmj, 331*(7524), 1064-1065.
- Gurl, T. J. (2019). Classroom practices of cooperating teachers and their relationship to collaboration quality and time: perceptions of student teachers. *Teaching Education, 30*(2), 177-199.
- Hadar, L., & Brody, D. (2010). From isolation to symphonic harmony: Building a professional development community among teacher educators. *Teaching and Teacher Education, 26*(8), 1641-1651.
- Hammersley, M., & Atkinson, P. (2007). *Ethnography: Principles in practice*: Routledge.
- Haque, S. T. M., & Mohammad, S. N. (2013). Administrative culture and incidence of corruption in Bangladesh: A search for the potential linkage. *International Journal of Public Administration, 36*(13), 996-1006.
- Hardy, I., & Grootenboer, P. (2016). Cultivating community: Detailing school and community engagement under complex conditions. *Teaching Education, 27*(1), 21-38.
- Hargreaves, A. (1992). Cultures of teaching: A focus for change. *Understanding teacher development, 216-240*.
- Hargreaves, A. (2001). *Changing teachers, changing times: Teachers' work and culture in the postmodern age*: A&C Black.
- Hargreaves, A., & O'Connor, M. T. (2017). Cultures of professional collaboration: their origins and opponents. *Journal of Professional Capital and Community, 2*(2), 74-85.
- Hargreaves, E. (2013). Assessment for learning and teacher learning communities: UK teachers' experiences. *Teaching Education, 24*(3), 327-344.
- Hart, C. (2001). *Doing a literature search: a comprehensive guide for the social sciences*: Sage.
- Haver, W. E., Trinter, C. P., & Inge, V. L. (2017). The Virginia mathematics specialist initiative: Collaborative effort among all components of the VA mathematics community. *The Journal of Mathematical Behavior, 46*, 289-302.
- Hedegaard, M. (1998). Situated learning and cognition: Theoretical learning and cognition. *Mind, Culture, and Activity, 5*(2), 114-126.
- Heikkinen, H. L., Jokinen, H., & Tynjälä, P. (2012). Teacher education and development as lifelong and lifewide learning. In H. L. Heikkinen, H. Jokinen, & P. Tynjälä (Eds.), *Peer-group mentoring for teacher development* (pp. 19-46). London: Routledge.

- Hernández-Sellés, N., Muñoz-Carril, P.-C., & González-Sanmamed, M. (2019). Computer-supported collaborative learning: An analysis of the relationship between interaction, emotional support and online collaborative tools. *Computers & Education, 138*, 1-12.
- Hillier, J., & Rooksby, E. (2005). *Habitus: A sense of place*: Ashgate Aldershot.
- Hofstede, G. (2009). Geert Hofstede cultural dimensions. Retrieved 07/08/2018, 2018, from <https://geerthofstede.com/landing-page/>
- Hofstede, G., Hofstede, G. J., & Minkov, M. (2010). *Cultures and organizations: software of the mind: intercultural cooperation and its importance for survival*. London: McGraw-Hill.
- Hogg, M. A., & Terry, D. I. (2000). Social identity and self-categorization processes in organizational contexts. *Academy of management review, 25*(1), 121-140.
- Hooks, B. (2000). *Feminist theory: From margin to center*: Pluto Press.
- Hsu, P.-L. (2019). "It's the magic circle"! using cogenerative dialogues to create a safe environment to address emotional conflicts in a project-based learning science internship. *Cultural Studies of Science Education, 1-24*.
- Hunzicker, J. (2012). Professional development and job-embedded collaboration: How teachers learn to exercise leadership. *Professional Development in Education, 38*(2), 267-289.
- Hyslop-Margison, E. J., & Sears, A. M. (2010). Enhancing teacher performance: The role of professional autonomy. *Interchange, 41*(1), 1-15.
- Ingersoll, R. M., & Strong, M. (2011). The impact of induction and mentoring programs for beginning teachers: A critical review of the research. *Review of educational research, 81*(2), 201-233.
- James, C., Dunning, G., Connolly, M., & Elliott, T. (2007). Collaborative practice: A model of successful working in schools. *Journal of Educational Administration, 45*(5), 541-555.
- Jao, L., & McDougall, D. (2016). Moving beyond the barriers: Supporting meaningful teacher collaboration to improve secondary school mathematics. *Teacher Development, 20*(4), 557-573.
- JICA. (2017). JICA Support Program for Strengthening the Capacity of Teacher Training in Primary Teachers Training Institutes to Improve Classroom Teaching Under Component 1 of PEDP3 : Project Completion Report Hiroshima.
- Johnson, R. (1976). *Teacher collaboration, principal influence, and decision making in elementary schools*: Stanford Center for Research and Development in Teaching.
- Jones, B. A., & Peterson-Ahmad, M. B. (2017). Preparing New Special Education Teachers to Facilitate Collaboration in the Individualized Education Program Process through Mini-Conferencing. *International Journal of Special Education, 32*(4), 697-707.
- Kelani, R. R., & Khourey-Bowers, C. (2012). Professional development in sub-Saharan Africa: what have we learned in Benin? *Professional Development in Education, 38*(5), 705-723.
- Kelchtermans, G. (2006). Teacher collaboration and collegiality as workplace conditions. A review. *Zeitschrift für Pädagogik, 52*(2), 220-237.
- Kelly, J., & Cherkowski, S. (2015). Collaboration, collegiality, and collective reflection: A case study of professional development for teachers. *Canadian Journal of Educational Administration and Policy*(169).
- Kennedy, M. M. (2007). Defining a literature. *Educational researcher, 36*(3), 139-147.
- Ketterlin-Geller, L. R., Baumer, P., & Lichon, K. (2015). Administrators as advocates for teacher collaboration. *Intervention in School and Clinic, 51*(1), 51-57.
- Kingston, P. W. (2001). The unfulfilled promise of cultural capital theory. *Sociology of Education, 88-99*.
- Knoema. (2015). Bangladesh - Pupil-teacher ratio in primary education. Retrieved 11/09/2019, 2019, from <https://knoema.com/atlas/Bangladesh/topics/Education/Teachers/Pupil-teacher-ratio-in-primary-education>
- Krammer, M., Rossmann, P., Gastager, A., & Gasteiger-Klicpera, B. (2018). Ways of composing teaching teams and their impact on teachers' perceptions about collaboration. *European Journal of Teacher Education, 41*(4), 463-478.
- Kuh, L. P. (2016). Teachers talking about teaching and school: collaboration and reflective practice via Critical Friends Groups. *Teachers and Teaching, 22*(3), 293-314.

- Kumar, K. (2015). The meek dictator: the Indian teacher in historical perspective *Handbook of Educational Ideas and Practices* New York: Routledge
- Kwakman, K. (2003). Factors affecting teachers' participation in professional learning activities. *Teaching and Teacher Education, 19*(2), 149-170.
- Lambert, R., Bullock, R., & Milham, S. (1970). A Manual to the Sociology of the School (London, Weidenfeld & Nicolson). *Lambert A Manual to the Sociology of the School 1970*.
- Latif, S. (2005). Improvements in the quality of primary education in Bangladesh 1990-2002. *Unpublished background paper for EFA Global Monitoring Report*.
- Lave, J. (1991). Situating learning in communities of practice. *Perspectives on socially shared cognition, 2*, 63-82.
- Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation*: Cambridge university press.
- Lave, J., & Wenger, E. (2013). Legitimate peripheral participation in community of practice. In M. Lea, R
- Nicoll, K (Ed.), *Distributed Learning: Social and Cultural Approaches to Practice*: Routledge.
- Lemon, N., Wilson, A., Oxworth, C., Zavros-Orr, A., & Wood, B. (2018). Lines of School-University Partnership: Perception, Sensation and Meshwork Reshaping of Preservice Teachers' Experiences. *Australian Journal of Teacher Education, 43*(10), 81-97.
- Li, Z. (2019). Collaborative research approaches between universities and schools: the case of New Basic Education (NBE) in China. *Educational Studies, 1*-19.
- Lin, X., Hu, X., Hu, Q., & Liu, Z. (2016). A social network analysis of teaching and research collaboration in a teachers' virtual learning community. *British Journal of Educational Technology, 47*(2), 302-319.
- Little, J. W. (1982). Norms of collegiality and experimentation: Workplace conditions of school success. *American educational research journal, 19*(3), 325-340.
- Little, J. W. (1999). Colleagues of choice, colleagues of circumstance: Response to M. Fielding. *The Australian Educational Researcher, 26*(2), 35-43.
- Little, J. W. (2003). Inside teacher community: Representations of classroom practice. *Teachers college record, 105*(6), 913-945.
- Little, J. W., & Bird, T. (1984). Report on a Pilot Study of School-Level Collegial Teaming.
- Littleton, K., & Mercer, N. (2013). *Interthinking: Putting talk to work*: Routledge.
- Liu, S. H. (2017). Perceptions on the purposes of and concerns about collaborative lesson study in the professional development of Taiwanese secondary school teachers. *Contemporary educational research quarterly, 25*(2), 43-76.
- Liu, Y. (2019). Situated teacher learning as externalising and mobilising teachers' tacit knowledge through talk in a language teacher professional community. *Research Papers in Education, 34*(3), 330-351.
- Lofthouse, R., & Thomas, U. (2017). Concerning collaboration: teachers' perspectives on working in partnerships to develop teaching practices. *Professional Development in Education, 43*(1), 36-56.
- Loima, J. (2016). A decision-maker or a collaborator? Reflecting teacher's professional development trends in Thailand. *Cogent Education, 3*(1), 1215216.
- Lom, E., & Sullenger, K. (2011). Informal spaces in collaborations: exploring the edges/boundaries of professional development. *Professional Development in Education, 37*(1), 55-74.
- Lortie, D. C. (1977). *Schoolteacher: A sociological study*. Chicago: University of Chicago Press. .
- Magen-Nagar, N., & Shonfeld, M. (2018). The impact of an online collaborative learning program on students' attitude towards technology. *Interactive Learning Environments, 26*(5), 621-637.
- Markow, D., & Pieteres, A. (2009). The MetLife survey of the American teacher: Collaborating for student success: New York: MetLife, Inc.
- Martinez, A. N., Valdez, C., & Cariaga, S. (2016). Solidarity with the people: Organizing to disrupt teacher alienation. *Equity & Excellence in Education, 49*(3), 300-313.
- Marzano, R. J. (2013). The Marzano teacher evaluation model. *Marzano Research Laboratory*.

- Maslow, A. H. (1943). A theory of human motivation. *Psychological review*, 50(4), 370.
- Mawhinney, L. (2008). Laugh so you don't cry: teachers combating isolation in schools through humour and social support. *Ethnography and education*, 3(2), 195-209.
- McCormick, R., Fox, A., Carmichael, P., & Procter, R. (2010). *Researching and understanding educational networks*: Routledge.
- Meyer, J. H., & Land, R. (2005). Threshold concepts and troublesome knowledge (2): Epistemological considerations and a conceptual framework for teaching and learning. *Higher education*, 49(3), 373-388.
- Ministry of Education. (2010). *National Education Policy 2010*. Dhaka: Government Republic of Bangladesh.
- Ministry of Primary and Mass Education. (2018). *Shorkari Prathomik Biddaloyer Shikkhon Bodli Neetimala (Teacher transfer policy in government primary schools)*. Dhaka: Ministry of Primary and Mass Education.
- Moloi, K. C. (2010). How can schools build learning organisations in difficult education contexts? *South African Journal of Education*, 30(4).
- Monteiro, E., & Morrison, K. (2014). Challenges for collaborative blended learning in undergraduate students. *Educational Research and Evaluation*, 20(7-8), 564-591.
- Moon, J. A. (1999). *Learning journals: A handbook for academics, students and professional development*: Routledge.
- Moon, J. A. (2006). *Learning journals: A handbook for reflective practice and professional development*: Routledge.
- Mora-Ruano, J. G., Gebhardt, M., & Wittmann, E. (2018). *Teacher Collaboration in German Schools: Do Gender and School Type Influence the Frequency of Collaboration Among Teachers?* Paper presented at the Frontiers in Education.
- Morton, M., & McMenamin, T. (2011). Learning together: Collaboration to develop curriculum assessment that promotes belonging. *Support for Learning*, 26(3), 109-114.
- Mullick, J., Deppeler, J., & Sharma, U. (2012). Inclusive Education Reform in Primary Schools of Bangladesh: Leadership Challenges and Possible Strategies to Address the Challenges. *International Journal of Whole Schooling*, 8(1), 1-20.
- Mullick, J. I., & Sheesh, S. (2008). Teachers quality and teacher education at primary education sub-sector in Bangladesh.
- Murugaiah, P., Azman, H., Thang, S. M., & Krish, P. (2012). Teacher learning via communities of practice: A Malaysian case study. *International Journal of Pedagogies and Learning*, 7(2), 162-174.
- Musanti, S. I. (2017). Challenging inquiry and building community: Analyzing ESL and bilingual teachers' narratives. *Action in Teacher Education*, 39(3), 292-306.
- Musanti, S. I., & Pence, L. (2010). Collaboration and teacher development: Unpacking resistance, constructing knowledge, and navigating identities. *Teacher Education Quarterly*, 37(1), 73-89.
- Nakata, Y. (2015). Insider–outsider perspective: revisiting the conceptual framework of research methodology in language teacher education. *International Journal of Research & Method in Education*, 38(2), 166-183.
- NAPE. (2015). *DPEd Mullayon Nirdeshika (DPEd Assessment Guide)*. Dhaka: National Academi for Primary Education.
- Naples, N. (1996). The outsider phenomenon. In C. Smith & W. Kornblum (Eds.), *In the field: Readings on the field research experience* (2nd ed., pp. 139-149). Westport: Praeger Publishers.
- Nath, S. R. (2008). Private supplementary tutoring among primary students in Bangladesh. *Educational Studies*, 34(1), 55-72.
- Naylor, A., & Gibbs, J. (2018). Deep learning: Enriching teacher training through mobile technology and international collaboration. *International Journal of Mobile and Blended Learning (IJMBL)*, 10(1), 62-77.

- Nel, M., Engelbrecht, P., Nel, N., & Tlale, D. (2014). South African teachers' views of collaboration within an inclusive education system. *International Journal of Inclusive Education*, 18(9), 903-917.
- Nias, J. (2002). *Primary teachers talking: A study of teaching as work*: Routledge.
- Nias, J., Southworth, G., & Yeomans, R. (1989). *Staff relationships in the primary school: A study of organizational cultures*: Mansell.
- Nouri, J., Cerratto-Pargman, T., Eliasson, J., & Ramberg, R. (2011). Exploring the challenges of supporting collaborative mobile learning. *International Journal of Mobile and Blended Learning (IJMBL)*, 3(4), 54-69.
- Ololube, N. P. (2006). *Teachers Job Satisfaction and Motivation for School Effectiveness: An Assessment*. University of Helsinki, Finland. Retrieved from https://openriver.winona.edu/cgi/viewcontent.cgi?article=1167&=&context=eie&=&seidir=1&referer=https%253A%252F%252Fscholar.google.com%252Fscholar%253Fhl%253Den%2526as_sdt%253D2005%2526sciott%253D0%25252C5%2526cites%253D12536156717838045303%2526scpsc%253D%2526q%253DTeachers%252BJob%252BSatisfaction%252Band%252BMotivation%252Bfor%252BSchool%252BEffectiveness%25253A%252BAn%252BAssessment%2526btnG%253D#search=%22Teachers%20Job%20Satisfaction%20Motivation%20School%20Effectiveness%3A%20An%20Assessment%22
- Palaganas, E. C., Sanchez, M. C., Molintas, M., Visitacion, P., & Caricativo, R. D. (2017). Reflexivity in qualitative research.
- Palaganas, E. C., Sanchez, M. C., Molintas, M. P., & Caricativo, R. D. (2017). Reflexivity in Qualitative Research: A Journey of Learning. *The Qualitative Report*, 22(2), 426-438.
- Pancsofar, N., & Petroff, J. G. (2016). Teachers' experiences with co-teaching as a model for inclusive education. *International Journal of Inclusive Education*, 20(10), 1043-1053.
- Parsons, A. W., Ankrum, J. W., & Morewood, A. (2016). Professional development to promote teacher adaptability. *Theory into practice*, 55(3), 250-258.
- Parsons, T. (2007). The school class as a social system. *Schools and society: A sociological approach to education*, 35-40.
- Patton, K., & Parker, M. (2017). Teacher education communities of practice: More than a culture of collaboration. *Teaching and Teacher Education*, 67, 351-360.
- Pawson, R. (2013). *The science of evaluation: a realist manifesto*: Sage.
- Philip, T. M., Martinez, D. C., Lopez, E., & Garcia, A. (2016). Toward a teacher solidarity lens: Former teachers of color (re) envisioning educational research. *Race ethnicity and education*, 19(1), 182-199.
- Pillow, W. (2003). Confession, catharsis, or cure? Rethinking the uses of reflexivity as methodological power in qualitative research. *International journal of qualitative studies in education*, 16(2), 175-196.
- Pomson, A. D. (2005). One classroom at a time? Teacher isolation and community viewed through the prism of the particular. *Teachers college record*, 107(4), 783-802.
- Power, T. (2019). Approaches to Teacher Professional Development in Low-to-Middle-Income Countries. In I. Eyres, B. McCormick, & T. Power (Eds.), *Sustainable English teacher development at scale: Lesson from Bangladesh*. London: Bloomsbury.
- Pratt, S. (2014). Achieving symbiosis: Working through challenges found in co-teaching to achieve effective co-teaching relationships. *Teaching and Teacher Education*, 41, 1-12.
- Prime Minister's Office Bangladesh (Producer). (2018, 15/07/2019). Shikkhok Batayon (Window for teachers) Retrieved from <https://www.teachers.gov.bd/>
- Punch, M. (1993). Observation and the police: the research experience. In M. Hammersley (Ed.), *Social research: philosophy, politics and practice* (pp. 181-199). London: Sage Publications.
- Rahman, M. (2014). *Maddhyamik Sikkha, Shikkhakrom O Sishur Kromobikash (Secondary Education, Curriculum and Development of Children)*. Dhaka: Provati Library.
- Rahman, M. S. (2019). Teachers' peer support: difference between perception and practice. *Teacher Development*, 23(1), 121-138.

- Rahman, S. (2011). *Influence of Professional Learning Community (PLC) on secondary science teachers' culture of professional practice: The case of Bangladesh*. Paper presented at the Asia-Pacific Forum on Science Learning & Teaching.
- Rahman, S. H. (2011). *Influence of professional learning community (PLC) on secondary science teachers' culture of professional practice: The case of Bangladesh*. Paper presented at the Asia-Pacific forum on science learning and teaching.
- Rempe-Gillen, E. (2018). Primary school teacher experiences in cross-phase professional development collaborations. *Professional Development in Education*, 44(3), 356-368.
- Retallick, J. (1999). Teachers' workplace learning: Towards legitimation and accreditation. *Teachers and Teaching*, 5(1), 33-50.
- Rhodes, C., & Beneicke, S. (2002). Coaching, mentoring and peer-networking: Challenges for the management of teacher professional development in schools. *Journal of in-service education*, 28(2), 297-310.
- Ricci, L. A., Zetlin, A., & Osipova, A. V. (2017). Preservice special educators' perceptions of collaboration and co-teaching during university fieldwork: implications for personnel preparation. *Teacher Development*, 21(5), 687-703.
- Rickard, A., & Walsh, T. (2019). Policy, practice and process in team teaching: a pilot project with co-operating teachers and student teachers on school placement. *Irish Educational Studies*, 1-18.
- Riveros, A., Newton, P., & Burgess, D. (2012). A situated account of teacher agency and learning: Critical reflections on professional learning communities. *Canadian Journal of Education*, 35(1), 202-216.
- Robert Wood Johnson Foundation. (2008). Qualitative Reserach Guideline Project. Retrieved 25/01/2020, 2020, from www.qualres.org/HomeOppo-3815.html
- Robson, C. (2002). Real world research. 2nd. Edition. Blackwell Publishing. Malden.
- Ronfeldt, M., Farmer, S. O., & McQueen, K. (2015). Teacher Collaboration in Instructional Teams and Student Achievement. *American educational research journal*, 52(3), 475-514.
- Ronfeldt, M., Farmer, S. O., McQueen, K., & Grissom, J. A. (2015). Teacher collaboration in instructional teams and student achievement. *American educational research journal*, 52(3), 475-514.
- Roth, W.-M., Robin, K., & Zimmermann, A. (2002). Coteaching/cogenerative dialoguing: Learning environments research as classroom praxis. *Learning Environments Research*, 5(1), 1-28.
- Roy, M. K., Syed, I., & Uddin, S. (2014). Bangladesh Village: A Study of Peasant Power and Politics. *ASA University Review*, 8(2).
- Salter, J. M., Swanwick, R. A., & Pearson, S. E. (2017). Collaborative working practices in inclusive mainstream deaf education settings: teaching assistant perspectives. *Deafness & Education International*, 19(1), 40-49.
- Schön, D. A. (2017). *The reflective practitioner: How professionals think in action*: Routledge.
- Scotland, J. (2012). Exploring the philosophical underpinnings of research: Relating ontology and epistemology to the methodology and methods of the scientific, interpretive, and critical research paradigms. *English language teaching*, 5(9), 9-16.
- Scott, D. (2005). Critical realism and empirical research methods in education. *Journal of Philosophy of Education*, 39(4), 633-646.
- Scribner, J. P., Sawyer, R. K., Watson, S. T., & Myers, V. L. (2007). Teacher teams and distributed leadership: A study of group discourse and collaboration. *Educational Administration Quarterly*, 43(1), 67-100.
- Sears, R., Kersaint, G., Burgos, F., & Wooten, R. (2019). Collaborative Effort to Develop Middle School Preservice Teachers' Mathematical Knowledge. *PRIMUS*, 1-17.
- Sehgal, P., Nambudiri, R., & Mishra, S. K. (2017). Teacher effectiveness through self-efficacy, collaboration and principal leadership. *International Journal of Educational Management*, 31(4), 505-517.
- Seo, K., & Han, Y.-K. (2012). The vision and the reality of professional learning communities in Korean schools. *KEDI Journal of Educational policy*, 9(2).

- Sharp, & Green. (1984). Social Stratification in the Classroom In A. Hargreaves & P. Woods (Eds.), *Classroom and Staffroom*. UK: Open University Press.
- Shingphachanh, S. (2019). Exploring the impact of lesson study through the views of Lao mathematics teacher educators on the needs, learning and difficulties. *International Journal for Lesson and Learning Studies*, 8(2), 98-116.
- Shumba, J., Rembe, S., Chacko, T., & Luggya, S. (2016). Mentoring: Reflections of Student Teachers in One South African University. *Journal of Social Sciences*, 48(1-2), 71-78.
- Siampou, F., Komis, V., & Tselios, N. (2014). Online versus face-to-face collaboration in the context of a computer-supported modeling task. *Computers in Human Behavior*, 37, 369-376.
- Simons, H. (1996). The paradox of case study. *Cambridge Journal of Education*, 26(2), 225-240.
- Somerville, M., & Abrahamsson, L. (2003). Trainers and learners constructing a community of practice: Masculine work cultures and learning safety in the mining industry. *Studies in the Education of Adults*, 35(1), 19-34.
- Spencer, E. J. (2016). Professional learning communities: Keeping the focus on instructional practice. *Kappa Delta Pi Record*, 52(2), 83-85.
- Stearns, E., Banerjee, N., Mickelson, R., & Moller, S. (2014). Collective pedagogical teacher culture, teacher–student ethno-racial mismatch, and teacher job satisfaction. *Social Science Research*, 45, 56-72.
- Steyn, G. M. (2015). Creating a teacher collaborative practice in a South African primary school: The role of the principal. *Journal of Asian and African studies*, 50(2), 160-175.
- Stoll, L., Bolam, R., McMahon, A., Wallace, M., & Thomas, S. (2006). Professional learning communities: A review of the literature. *Journal of educational change*, 7(4), 221-258.
- Stoll, L., & Louis, K. S. (2007). Professional learning communities: Elaborating new approaches. *Professional learning communities: Divergence, depth and dilemmas*, 1-13.
- Strahan, D., Geitner, M., & Lodico, M. (2010). Collaborative professional development toward literacy learning in a high school through connected coaching. *Teacher Development*, 14(4), 519-532.
- Sultana, F. (2009). Fluid lives: subjectivities, gender and water in rural Bangladesh. *Gender, Place and Culture*, 16(4), 427-444.
- Suri, H. (2011). Purposeful sampling in qualitative research synthesis. *Qualitative research journal*, 11(2), 63.
- Svanbjörnsdóttir, B. M., Macdonald, A., & Frímannsson, G. H. (2016). Teamwork in establishing a professional learning community in a new Icelandic school. *Scandinavian Journal of Educational Research*, 60(1), 90-109.
- Takahashi, A., & McDougal, T. (2016). Collaborative lesson research: maximizing the impact of lesson study. 48(4), 513-526.
- Tannehill, D., Parker, M., Tindall, D., Moody, B., & MacPhail, A. (2015). Looking across and within: Studying ourselves as teacher educators. *Asia-Pacific Journal of Health, Sport and Physical Education*, 6(3), 299-311.
- Tao, S. (2013). Why are teachers absent? Utilising the Capability Approach and Critical Realism to explain teacher performance in Tanzania. *International Journal of Educational Development*, 33(1), 2-14.
- Tasnim, S. (2006). *Job Satisfaction among Female Teachers: A study on primary schools in Bangladesh*. The University of Bergen.
- The Daily Star. (2013, 10/01/2013). Govt nationalises 26,193 primary schools: 1.04 lakh teachers, employees on govt payroll, PM announces at non-govt teachers' rally *The Daily Star*. Retrieved from <https://www.thedailystar.net/news-detail-264595>
- The World Bank. (2018). World Development Report 2018: Learning to realize education's promise. *Washington: Banco Mundial*.
- The World Bank. (2019). The World Bank In Bangladesh: Overview. Retrieved 28/03/2019, 2019, from <https://www.worldbank.org/en/country/bangladesh/overview>
- Themane, M., & Thobejane, H. R. (2019). Teachers as change agents in making teaching inclusive in some selected rural schools of Limpopo Province, South Africa: implications for teacher education. *International Journal of Inclusive Education*, 23(4), 369-383.

- Thompson, C. (2016). The magic of mentoring: a democratic approach to mentoring trainee teachers in post-compulsory education. *Research in Post-Compulsory Education*, 21(3), 246-259.
- Thornton, H. (2006). Teachers talking: the role of collaboration in secondary schools in Bangladesh. *Compare: A Journal of Comparative and International Education*, 36(2), 181-196.
- Tikly, L. (2015). What works, for whom, and in what circumstances? Towards a critical realist understanding of learning in international and comparative education. *International Journal of Educational Development*, 40, 237-249.
- Tilley, N. (2000). *Realistic evaluation: an overview*. Paper presented at the founding conference of the Danish Evaluation Society.
- U.S. Agency for International Development. (2002). Bangladesh Education Sector Review: Overview of the Basic Education Sector. Washington DC.
- UNESCO. (2013). Bangladesh: Age distribution and school attendance of girls aged 9-13 years.
- UNESCO. (2014). Education for All - Global Monitoring Report: Teaching and Learning: Achieving quality for all. Paris.
- UNICEF. (2009). Quality Primary Education in Bangladesh. from [http://www.unicef.org/bangladesh/Quality_Primary_Education\(1\).pdf](http://www.unicef.org/bangladesh/Quality_Primary_Education(1).pdf)
- United Nations. (2018). Sustainable Development Goals. Retrieved 24/06/2020, 2020, from <https://www.un.org/sustainabledevelopment/>
- Van Gasse, R., Vanlommel, K., Vanhoof, J., & Van Petegem, P. (2017). The impact of collaboration on teachers' individual data use. *School Effectiveness and School Improvement*, 28(3), 489-504.
- Vangrieken, K., Dochy, F., Raes, E., & Kyndt, E. (2015). Teacher collaboration: A systematic review. *Educational research review*, 15, 17-40.
- Vangrieken, K., Grosemans, I., Dochy, F., & Kyndt, E. (2017). Teacher autonomy and collaboration: A paradox? Conceptualising and measuring teachers' autonomy and collaborative attitude. *Teaching and Teacher Education*, 67, 302-315.
- Vescio, V., Ross, D., & Adams, A. (2008). A review of research on the impact of professional learning communities on teaching practice and student learning. *Teaching and Teacher Education*, 24(1), 80-91.
- Vesikivi, P., Lakkala, M., Holvikivi, J., & Muukkonen, H. (2018). Team teaching implementation in engineering education: teacher perceptions and experiences. *European Journal of Engineering Education*, 1-16.
- Vidich, A. J. (1955). Participant observation and the collection and interpretation of data. *American Journal of Sociology*, 60(4), 354-360.
- Waheduzzaman, W., & Alam, Q. (2015). Democratic culture and participatory local governance in Bangladesh. *Local Government Studies*, 41(2), 260-279.
- Wallace, C. S., & Priestley, M. (2011). Teacher beliefs and the mediation of curriculum innovation in Scotland: A socio - cultural perspective on professional development and change. *Journal of Curriculum Studies*, 43(3), 357-381.
- Walsh, C., Shaheen, R., Power, T., Hedges, C., Katoon, M., & Mondol, S. (2012). *Low cost mobile phones for large scale teacher professional development in Bangladesh*. Paper presented at the 11th World Conference on Mobile and Contextual Learning (mLearn 2012), Helsinki, Finland.
- Walsh, C. S., Shaheen, R., Power, T., Hedges, C., Katoon, M., & Mondol, S. (2012). Low cost mobile phones for large scale teacher professional development in Bangladesh.
- Wang, Q. (2010). Using online shared workspaces to support group collaborative learning. *Computers & Education*, 55(3), 1270-1276.
- Wenger, E. (2011). Communities of practice: A brief introduction.
- Wenger, E., & Wenger-Trayner, B. (2015). Communities of practice: A brief introduction. Retrieved 11/05/2019, 2019, from from: <http://wenger-trayner.com/introduction-to-communitiesof-practice/>

- Westbrook, J., Durrani, N., Brown, R., Orr, D., Pryor, J., Boddy, J., & Salvi, F. (2013). Pedagogy, curriculum, teaching practices and teacher education in developing countries. Education rigorous literature review. London: EPPI Institute of Education.
- Williams, A., Prestage, S., & Bedward, J. (2001). Individualism to collaboration: The significance of teacher culture to the induction of newly qualified teachers. *Journal of Education for Teaching, 27*(3), 253-267.
- Yao, N. (2018). Research on Application of Collaboration Ability in Kindergarten Game-based Education. *Kuram ve Uygulamada Egitim Bilimleri, 18*(5), 2470-2477.
- You, J., & Craig, C. J. (2015). Narrative accounts of US teachers' collaborative curriculum making in a physical education department. *Sport, Education and Society, 20*(4), 501-526.
- Zagona, A. L., Kurth, J. A., & MacFarland, S. Z. (2017). Teachers' views of their preparation for inclusive education and collaboration. *Teacher Education and Special Education, 40*(3), 163-178.
- Zembylas, M. (2003). Emotions and teacher identity: A poststructural perspective. *Teachers and Teaching, 9*(3), 213-238.
- Zhou, Q., Sun, H., Zhou, R., Sun, G., Shen, J., & Li, K. C. (2018). A collaborative and open solution for large - scale online learning. *Computer Applications in Engineering Education, 26*(6), 2266-2281.
- Zundans-Fraser, L., & Bain, A. (2016). The role of collaboration in a comprehensive programme design process in inclusive education. *International Journal of Inclusive Education, 20*(2), 136-148.

Appendix A: Project Registration and Risk Checklist

Human Research Ethics Committee (HREC)

Project Registration and Risk Checklist

If you are planning a research project that involves human participants (including data and/or biological samples), you need to complete and submit this checklist so that the HREC Chair can decide the level of ethics review required. If you have not already done so, please refer to the *OU Ethics Principles for Research Involving Human Participants*.

Once you have completed the checklist, save it for your records and email a copy to Research-REC-Review@open.ac.uk, with any relevant documents e.g. a questionnaire, consent form, participant information sheet, publicity leaflet and/or a draft bid. FAQs offering advice and guidance are available on the Research Ethics website. Once your checklist is submitted, you should receive a response within 7 working days as to whether your research will need full HREC review, but please indicate if you require a more urgent decision. It is essential that no potential participants should be approached to take part in any research until you have submitted your checklist and, where required, obtained a full HREC review.

To meet internal governance and highlight OU research, the titles of all projects considered by the HREC (whether by HREC checklist or proforma), will be added to the Research Ethics website - <http://www.open.ac.uk/research/ethics/human-research>. If you would prefer for your title **not** to be made public, or have any queries, please email the HREC Secretary on Research-REC-Review@open.ac.uk.

Section I: Project Details

Project title	The relationships between teachers' colligeality and their classroom pracice in Bangladeshi primary schools		
Brief description (100 words maximum)	The notion of teachers' collegiality involves formal and informal sharing of ideas and experiences with colleagues, critique their practice and providing feedback. It is often advocated that an effective collegial relationship among teachers helps them develop professionally, make confident and influence schools' policies. Nevertheless, how the interaction among colleagues helps improving their classroom practice is a black-box. This study aims to look at the relationship between teachers' collegial practice and their classroom pedagogy in Bangladeshi primary schools, specifically in English teaching. It also intends to see how teachers make meaning of their discussion and apply those in their classes.		
Is your research part of a previous or current application for external funding?	No	If yes, please provide the name of the funding body and/or your <u>Awards Management System</u> (AMS) reference	Funding body: AMS ref:
Schedule: Time frame for the research and its data collection phase(s) (For Pilot)	From: 1st February 2017		To: 5th March 2017

If your research involves using OU student or staff data you may also need to contact either the Student Research Project Panel or Staff Survey Project Panel. This can be done at the same time as your HREC application.

Section II: Applicant Details

Name of Primary Investigator (or research student)	Md. Shajedur Rahman	Status:	Postgraduate Student
Email address	md.rahman@open.ac.uk	Academic unit	Faculty of Wellbeing Education and Language Studies
Telephone number		Other researcher(s)	
Date			

Section III: For students only:

Pelasse select your postgraduate research degree from the drop-down list.	PhD	Supervisor's name	Dr. Ian Eyres
Your supervisor will need to email a brief <u>supporting statement</u>, before, or at the same time, this checklist is submitted.		Supervisor's email	ia.eyres@open.ac.uk

Section IV: Risk Checklist

Please assess your research using the following questions and click yes or no as appropriate. If there is any possibility of risk, please tick yes. Even if your list contains all “no”s you should still return your completed checklist to ensure your proposed research can be assessed and recorded by the HREC.

		Yes	No
1	Does the study involve children (under 16 years old), or those aged 16 and over who are unable to give informed consent? E.g. participants who are potentially vulnerable, such as people with learning disabilities, those with cognitive impairment, or those in unequal relationships, e.g. your own students?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2	Will the study require the co-operation of a gatekeeper for initial access to the groups or individuals to be recruited? (e.g. students at school, members of a self-help group, residents of a nursing home)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	Will it be necessary for participants to take part in the study without their knowledge and consent at the time? (e.g. covert observation of people in non-public places)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4	Will the study involve discussion of sensitive topics (e.g. sexual activity, drug use, or politics)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5	Are drugs, placebos or other substances (e.g. food substances, vitamins) to be administered to the study participants or will the study involve invasive, intrusive or potentially harmful procedures of any kind?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

6	Will the research involve the sharing of data or confidential information beyond the initial consent given?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7	Is pain or more than mild discomfort likely to result from the study?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	Will the research involve administrative or secure data that requires permission from the appropriate authorities before use?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9	Could the study induce psychological stress or anxiety or cause harm or negative consequences beyond the risks encountered in normal life?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	Will the study involve prolonged or repetitive testing?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11	Will the research take place outside the UK?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12	Does the research involve members of the public in a research capacity (participant research)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
13	Is there a possibility that the safety of the researcher may be in question? (e.g. in international research: locally employed research assistants)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
14	Will financial recompense (other than reasonable expenses and compensation for time) be offered to participants?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
15	Will the research involve participants responding via the internet or other visual/vocal methods where participants may be identified?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16	Will the study involve recruitment of patients or staff through the NHS or the use of NHS data?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17	Will tissue samples (including blood) or other human biological samples be obtained from participants?	<input type="checkbox"/>	<input checked="" type="checkbox"/>

18	Does your research include consideration of terrorism or extremism-related issues?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
----	--	--------------------------	-------------------------------------

If you answered ‘yes’ to questions **16** or **17**, you may have to submit an application to the Health Research Authority (HRA) Research Ethics Service.

Please note that it is your responsibility to follow the University’s **Code of Practice for Research** and the **Ethics Principles for Research involving Human Participants**, and any relevant academic or professional guidelines in the conduct of your study. Also, to provide appropriate participant information sheets and consent forms, and ensure secure storage and use of data. FAQs offering advice and guidance on these issues are available on the Research Ethics website.

Appendix B: Memorandum from the ethics committee

Human Research Ethics Committee (HREC)

From Dr Louise Westmarland
The Open University Human Research Ethics Committee
Email louise.westmarland@open.ac.uk
Extension (6) 52462
To Md Shajedur Rahman
Project title **An Exploratory Study of Teachers Collaboration in a Bangladeshi Primary School**
HREC ref HREC/2017/2508/Rahman/2
AMS ref



Memorandum

Date application submitted: 21/08/2017
Date of HREC response: 07/09/2017

This memorandum is to confirm that the research protocol for the above-named research project, for your main study, as submitted for ethics review, has been given a favourable opinion by HREC Chair's action.

Please note the following:

1. You are responsible for notifying the HREC immediately of any information received by you, or of which you become aware which would cast doubt on, or alter, any information contained in the original application, or a later amendment which would raise questions about the safety and/or continued conduct of the research.
2. It is essential that any proposed amendments to the research are sent to the HREC for review, so they can be recorded and a favourable opinion given prior to any changes being implemented (except only in cases of emergency when the welfare of the participant or researcher is or may be effected).
3. Please include your HREC reference number in any documents or correspondence, also any publicity seeking participants or advertising your research, so it is clear that it has been reviewed by HREC and adheres to OU ethics review processes.
4. You are authorised to present this memorandum to outside bodies such as NHS Research Ethics Committees in support of any application for future research clearance. Also, where there is an external ethics review, a copy of the application and outcome should be sent to the HREC.
5. OU research ethics review procedures are fully compliant with the majority of grant awarding bodies and where they exist, their frameworks for research ethics.
6. At the conclusion of your project, by the date you have stated in your application, you are required to provide the Committee with a final report to reflect how the project has progressed, and importantly whether any ethics issues arose and how they were dealt with. A copy of the final report template can be found on the research ethics website - <http://www.open.ac.uk/research/sites/www.open.ac.uk/research/files/files/ecms/research-pr/web-content/HREC-final-report-form.doc>.

Best regards

Dr Louise Westmarland
The Open University Human Research Ethics Committee

www.open.ac.uk/research/ethics/

January 2017

Appendix C: Information pack for participants

An Exploratory Study of Teachers Collaboration in a Bangladeshi Primary School¹⁰

Information about research project

This is a PhD research aims to investigate the relationship between teachers' collaboration and their classroom practice. Teacher collaboration within schools is almost always advocated as an effective mean of professional development. Previous studies provide some evidence of the benefits of teachers' collaboration in terms of school improvement and students' gain. However, whether the interaction among colleagues helps the teacher to improve their teaching is understudied. Thus, this study proposes a qualitative approach to investigate the relationships between the collaborative practice and teachers' learning and how that effect on their classroom teaching. The findings of this study are expected to inform the schools, teachers, educators and policymakers to strengthen school-based teacher professional development.

To achieve the aim of this research, data will be collected using observation of the school and classroom as well as by semi structured interview schedule. The interview schedule will be used to collect data from headteacher and teachers while observation schedule will be used to observe classroom activities and collaborative activities in school.

Headteacher interview: The headteacher interview will be used to understand how teachers collaborate with their colleagues within the administrative culture. The interview will be conducted once in each school from the headteacher. Discussion during this interview will involve school general information (i.e. number of teachers, their teaching history, enrolment

¹⁰ The title of the study was initially An Exploratory Study of Teachers Collaboration in a Bangladeshi Primary School. Later it was changed to Unexplored areas of teacher collaboration: evidence from a Bangladeshi rural primary school.

and socio-economic background of the school and students), the provision of teachers' collaboration in the school, its' necessity, and challenges around this. The interview will be audio recorded.

School observation: School observation is aimed to understand the nature of teacher collaboration in a school. Observation will be conducted throughout the school hours approximately for three days in three weeks. In each hour the activities among teachers especially in the staff room and if there is any other collaborative activity happens will be recorded. During the observation picture of activities and artefacts (i.e. lesson plan, meeting minutes) might be taken and some of the activities might be filmed and audio recorded.

Classroom observation: The aim of classroom observation is to identify any influence of the discussion or work teacher do with their colleagues outside of the classroom on teacher practice. Two classrooms will be observed on each visit day. Classroom activity might be video recorded if it is allowed.

Teacher interview: A semi structured teacher interview is aimed to understand teachers' perception about collaboration, how they think they create the meaning of their practice through collaboration and interaction with their colleagues, the motivation and barrier for such activities and how those activity related to their professional development and classroom practice. This interview will be conducted two teachers in each school in each visit day.

Both the respondent and the researcher need to be agreed on the following points. Upon the agreement respondent will be provided with a consent letter which s/he needs to sign on.

Please note that

1. Your participation is voluntary and that
2. If you withdraw, all of the information you provided will be destroyed

3. At the end of each period in a school, you will have a chance to reflect on the evidence you have provided and to ask any questions you may have. I will also send you all transcriptions of data collected from you by 31st October 2018. If you are happy with all the transcriptions, you will be asked to sign a consent form, permitting the anonymous use of your data in the thesis and dissemination. Before this consent is signed you can opt out from the study anytime you want. Any information you do not want to share will be discarded.
4. The information provided by you will remain anonymous. However, the information will be used for research purposes and might be used in the doctoral thesis, conference presentation and academic writings including journal articles and book chapters.
5. Data gathered from you will be securely stored on the Open University's 'open data' platform, your anonymity will be protected on this platform.
6. The data might be stored for quite a long period of time (say five years).
7. You can choose not to answer any question in an interview.
8. You can ask any question related to this study, at any time. I will try to explain at my level best.
9. I am not allowed to offer you any financial or materials incentives on this occasion. However, I will share the findings with the participants when I finish my research.

If you are agreed on those points please sign the consent letter which is a requirement by the University for my Research.

Thank you for your time and support.

Researcher

Md. Shajedur Rahman, PhD student, The Open University, md.rahman@open.ac.uk

Mobile: +8801779896140 (Bangladesh), +447493649522 (UK)

Supervisors

Dr. Ian Eyres, Senior Lecturer, The Open University ian.eyres@open.ac.uk

Miss Kimberly Safford Senior, Lecturer, The Open University

Kimberly.safford@open.ac.uk

Mr. Tom Power Senior Lecturer, The Open University tom.power@open.ac.uk

My supervisors welcome any queries about the project.

Appendix D: Teachers' consent form

An Exploratory Study of Teachers Collaboration in a Bangladeshi Primary School

Consent of anonymous use of the data

I hereby certify that all of my questions and concerns about this study have been addressed.

I choose, voluntarily, to participate in this research project.

I had chance to reflect on the information I provided, and I agree that the data could be used anonymously for the dissertation and other dissemination means. I understand that after this point I will have no chance to withdraw my participation from this project.

Print name of participant

Signature of participant

Date

Appendix E: Teachers' consent form (Bangla)

বাংলাদেশে প্রাথমিক বিদ্যালয়ে শিক্ষকদের মধ্যে পারস্পারিক সহযোগিতামূলক কর্মকাণ্ডের গবেষণা

সাক্ষাৎকার অনুমতিপত্র

আমাকে উপরোক্ত বিষয়ে গবেষণার জন্য সাক্ষাৎকার আলোচনায় অংশগ্রহণ করতে অনুরোধ করা হয়েছে।

নিম্নোক্ত বিষয়ে নিশ্চিত হয়ে আমি এই ফরমে স্বাক্ষর করছি।

আমি গবেষণা প্রকল্পের তথ্যসমূহ ভালোভাবে পড়ে বুঝেছি এবং গবেষক আমাকে এবিষয়ে বিস্তারিত ব্যাখ্যা দিয়েছেন।	<input type="checkbox"/>
আমি বুঝতে পেরেছি যে এই গবেষণায় আমার অংশগ্রহণ সম্পূর্ণ স্বেচ্ছামূলক। আমার দেওয়া তথ্যগুলো ব্যবহারের জন্য ৩১ অক্টোবর ২০১৮ এর মধ্যে চূড়ান্ত অনুমতি প্রদান করতে হবে। এম মধ্যে যে কোন সময় চাইলে আমি অংশগ্রহণ মূলতবি করতে পারব।	<input type="checkbox"/>
আমি অংশগ্রহণ থেকে বিরত থাকতে চাইলে আমার কাছ থেকে সংগৃহিত তথ্য নষ্ট করে ফেলা হবে।	<input type="checkbox"/>
আমি বুঝতে পেরেছি যে আমার সাক্ষাৎকার অডিও রেকর্ড করা হবে।	<input type="checkbox"/>
আমি বুঝতে পেরেছি যে যদি কোন তথ্যের দ্বারা আমাকে সনাক্ত করা যায় তাহলে সেই তথ্য প্রকাশ করা হবে না।	<input type="checkbox"/>
আমি বুঝতে পেরেছি যে আমার দেওয়া তথ্য কেবলমাত্র গবেষণার কাজেই ব্যবহৃত হবে। পিএইচডি থিসিস, জার্নাল আর্টিকেল, বই এর চ্যপ্টার এবং কনফারেন্স প্রেজেন্টেশনে ব্যবহৃত হতে পারে।	<input type="checkbox"/>

আমি বুঝতে পেরেছি যে আমার দেওয়া তথ্য ওপেন ইউনিভার্সিটিতে সংরক্ষিত থাকবে। তবে তাতে আমার পরিচয় গোপন থাকবে।	<input type="checkbox"/>
আমি চাইলে যে কোন প্রশ্ন এড়িয়ে যেতে পারব।	<input type="checkbox"/>
আমাকে গবেষণা সম্পর্কিত যে কোন প্রশ্ন করার সুযোগ দেওয়া হবে।	<input type="checkbox"/>

আমি উল্লেখিত বিষয়ে অবগত হয়ে এই গবেষণায় অংশগ্রহণের জন্য আগ্রহ প্রকাশ করছি।

নাম :...

স্বাক্ষর :...

তারিখ :

দয়া করে দু'টি ফরমে স্বাক্ষর করুন। একটি আপনি রেখে দিতে পারেন।

এই গবেষণা সম্পর্কিত যে কোন তথ্যের জন্য গবেষক বা তার তত্ত্বাবধানকারীদের যে কারো সাথে যোগাযোগ করতে পারেন। তাদের

নাম, পদবী ও ইমেইল নিম্নরূপ:

Researcher

Md. Shajedur Rahman, PhD student, The Open University, md.rahman@open.ac.uk

Mobile: +8801779896140 (Bangladesh), +447493649522 (UK)

Supervisors

Dr. Ian Eyres, Senior Lecturer, The Open University ian.eyres@open.ac.uk

Miss Kimberly Safford Senior, Lecturer, The Open University

Kimberly.safford@open.ac.uk

Mr. Tom Power Senior Lecturer, The Open University tom.power@open.ac.uk

Appendix F: School consent form (Bangla)

বাংলাদেশে প্রাথমিক বিদ্যালয়ে শিক্ষকদের মধ্যে পারস্পারিক সহযোগিতামূলক কর্মকাণ্ডের গবেষণা

বিদ্যালয় অংশগ্রহণ অনুমতিপত্র

আমার বিদ্যালয়কে উপরোক্ত গবেষণার জন্য উপাত্ত সংগ্রহের জন্য নির্বাচন করা হয়েছে। নিম্নোক্ত বিষয়ে নিশ্চিত হয়ে আমি বিদ্যালয়ের পক্ষ থেকে এই ফরমে সাক্ষর করছি।

আমি গবেষণা প্রকল্পের তথ্যসমূহ ভালোভাবে পড়ে বুঝেছি এবং গবেষক আমাকে এবিষয়ে বিস্তারিতভাবে ব্যাখ্যা করেছেন।	<input type="checkbox"/>
আমি বুঝতে পেরেছি যে এই গবেষণায় বিদ্যালয়ের অংশগ্রহণ সম্পূর্ণ স্বেচ্ছামূলক। বিদ্যালয়ের দেওয়া তথ্যগুলো ব্যবহারের জন্য ৩১ অক্টোবর ২০১৮ এর মধ্যে চূড়ান্ত অনুমতি প্রদান করতে হবে। এম মধ্যে যে কোন সময় চাইলে বিদ্যালয় অংশগ্রহণ মূলতবি করতে পারে।	<input type="checkbox"/>
আমি অংশগ্রহণ থেকে বিরত থাকতে চাইলে বিদ্যালয় থেকে সংগৃহিত তথ্য নষ্ট করে ফেলা হবে।	<input type="checkbox"/>
আমি বুঝতে পেরেছি যে উপাত্ত সংগ্রহের প্রক্রিয়ায় বিদ্যালয় কার্যক্রম পর্যবেক্ষণ, প্রধান শিক্ষক এবং সহকারি শিক্ষকবৃন্দের সাক্ষাৎকার গ্রহণ, শ্রেণীকক্ষ পর্যবেক্ষণ, ছবি তোলা, অডিও এবং ভিডিও রেকর্ড করা অন্তর্ভুক্ত থাকতে পারে।	<input type="checkbox"/>
আমি বুঝতে পেরেছি যে কোন তথ্য বিদ্যালয়ের ক্ষতির কারণ হলে তা প্রকাশ করা থেকে গবেষক বিরত থাকবেন।	<input type="checkbox"/>

আমি বুঝতে পেরেছি যে বিদ্যালয় থেকে সংগৃহিত তথ্য কেবলমাত্র গবেষণার কাজেই ব্যবহৃত হবে। পিএইচডি থিসিস, জার্নাল আর্টিকেল, বই এর চ্যাপ্টার এবং কনফারেন্স প্রেজেন্টেশনে ব্যবহৃত হতে পারে।	<input type="checkbox"/>
আমি বুঝতে পেরেছি যে বিদ্যালয় থেকে সংগৃহিত তথ্য ওপেন ইউনিভার্সিটিতে সংরক্ষিত থাকবে। তবে তাতে বিদ্যালয়ের পরিচয় গোপন থাকবে।	<input type="checkbox"/>
বিদ্যালয় কর্তৃপক্ষ চাইলে যে কোন তথ্য নাও দিতে পারে।	<input type="checkbox"/>
গবেষণা সম্পর্কিত যে কোন তথ্য বিদ্যালয় কর্তৃপক্ষ জানতে চাইতে পারে।	<input type="checkbox"/>
বিদ্যালয় কর্তৃপক্ষ সংগৃহিত তথ্য পুনঃনিরীক্ষণের অধিকার রাখে।	<input type="checkbox"/>

আমি উল্লেখিত বিষয়ে অবগত হয়ে এই গবেষণায় অংশগ্রহণের জন্য আগ্রহ প্রকাশ করছি।

নাম :্

পদবী :্.

স্বাক্ষর :্.

তারিখ :্.

দয়া করে দু'টি ফরমে স্বাক্ষর করুন। একটি আপনি রেখে দিতে পারেন।

এই গবেষণা সম্পর্কিত যে কোন তথ্যের জন্য গবেষক বা তার তত্ত্বাবধানকারীদের যে কারো সাথে যোগাযোগ করতে পারেন।

তাদের নাম, পদবী ও ইমেইল নিম্নরূপ:

Researcher

Md. Shajedur Rahman, PhD student, The Open University, md.rahman@open.ac.uk

Mobile: +8801779896140 (Bangladesh), +447493649522 (UK)

Supervisors

Dr. Ian Eyres, Senior Lecturer, The Open University ian.eyres@open.ac.uk

Miss Kimberly Safford Senior, Lecturer, The Open University

Kimberly.safford@open.ac.uk

Mr. Tom Power Senior Lecturer, The Open University tom.power@open.ac.uk

Appendix G: Headteacher interview schedule

An Exploratory Study of Teachers Collaboration in a Bangladeshi Primary School

Headteacher interview

1. What is your opinion about teachers' collegial collaboration?
2. What benefit you can see from it?
3. What challenges you can see for it?
4. What are the opportunities in your school for teachers to collaborate with their colleagues?
5. In which occasions teachers collaborate generally?
6. How do you facilitate the collaboration?
7. How they collaborate with you?
8. What are the occasions you work together with your teachers generally?
9. How are those interactions helpful for your teachers?
10. How are those interactions helpful for your school?
11. How are those interactions helpful for the students?

Appendix H: Teacher interview schedule

An Exploratory Study of Teachers Collaboration in a Bangladeshi Primary School

Teacher Interview schedule (Weekly)

- 1) How was the last week?
- 2) Name three things that you liked doing in last week.
- 3) Why those things were good to you?
- 4) Name three things you discussed or did with your colleagues last week?
- 5) Why those things were important to you?
- 6) How many colleagues did you do or discussed those things with? Why?
- 7) Who else were present during that discussion or work and what was their role there?
- 8) Why did you discussed or do those?
- 9) How those discussions and work helped you?

- 10) What are the things, you think, you could not have done if you did not discuss or do things with your colleague?
- 11) What are the points you had an agreement and disagreement with during those work and discussion? In case of disagreement what were the conclusion?
- 12) The work and discussion you did with your colleagues last week, how were those related to your classroom practice?
- 13) How those impact on your classroom practice?
- 14) Tell us, what you wanted to do last week but you could not? Why?
- a. How did you think those would have been helpful?
- 15) What did you wanted to do with your colleagues last week but could not? Why?
- a. How did you think those would have been helpful?

Appendix I: School Observation Schedule
An Exploratory Study of Teachers Collaboration in a Bangladeshi Primary School
School Observation Schedule

Major activity Checklist

Date: 9.10.17

Time	Activities
8.30-9.30	Somehow the T's are delayed today, urgent & I have seen them coming by 8:50, it's 8:55 now, no one is there. not sure if they changed timing. before it was pre exam and now it's post.
9.31-10.30	T's gradually coming. all (6 T's) in office now. They are discussing about a child sex dead in a pond. one T probably doing LP. They discussing about assessment too. in one table all the junior T's talking about Teaching & Assessment (about exam to come) here. some of them making breakfast
10.31-11.30	T's just came from class & went again
11.31-12.30	A FT was sitting in office. HT is a mt came and talk about model text conversation continue around 15 min although the mt had a class. talked about changing hour and school prob.
12.31-13.30	T's came to office. 2 mrs start talking about house renting (hospital's quarter) others joined the discussion. T's were talking about an instruction of a training. (not more than 10 white but 200 khata/2 dots). where they should work in school when they examine the abaka's
13.31-14.30	Lunch Break; Topic → Blue whale. student lie about exam result to their parents showing stories. death of Little girl, and about her mother. How society is spiling. How people use less oil in cooking and how use oil is harmful. (until 2:00)
14.31-15.30	3:00 T's come to office. talking about children death. showing photo on FB. HT: How many class should be more. 3:15 T's discussing about the effect of women abuse & one T's said "problem with maternal" another said please control. girl need to eat her own (TTO)
15.31-16.30	all T's in office discussing about leave. HT presiding like a meeting. He suggesting that T's use stop gap offer. Doctoral appointment.
16.31-17.30	

Some additional notes for the same day (09/10/2017)

A very late cloudy morning.
T's all are in class. Some just
changed class, some come to office
and say hello to colleagues.

9:30-10:30 - Other table consist of HT & ST's. talking about a model test
that scheduled by the TEO's on 14th which is a off day for primary school. They
talk about impitment of the Justice (political issue) & manner.

9:50 - All gone to class.

2:00: → 2 T's & HT in office. IMT & IFT watching video and discussing about
Exam question, some she shared something on FB about question.

2:20 → quite few T's in office discussing about rewarding students who
scored 100/100.

→ one said, 'but someone said that in paragon note it is mental! another said "let it go"
we will follow the note. Then they open a textbook, read a paragraph.

- "for that, ed, employment
- murdered" at all goes with "Bikaragator"

→ But if someone it comes in final exam what will we follow? Some
all T's why follow the guide?

→ asked what they decided? PT said in PSE we are given with
Answer so we follow that. meanwhile we will follow text book.

→ A.T.s asked HT if he should in class give 31 to B.T.

→ Joint work to IMT already ~~updated~~ text results. A.T. seeing the score & the
IMT entering it on the tabulation.

Appendix J: Structure of the project and audio files uploaded onto NVivo

The screenshot displays the NVivo software interface for a project titled "Teacher Collaboration analysis file.nvp - NVivo Plus". The interface is divided into several sections:

- Top Menu:** FILE, HOME, CREATE, DATA, ANALYZE, QUERY, EXPLORE, LAYOUT, VIEW.
- Toolbars:** Workspace, Item, Clipboard, Format, Paragraph, Styles, Editing, Proofing.
- Sources Panel (Left):** Shows a tree view of project sources. "Teachers' Discussion" is highlighted with a yellow circle. Other sources include Field notes, ইন্টারভিউস, Externals, Memos, and Framework Matrices.
- Search Panel (Top):** Look for, Search in (Teachers' Discus), Find Now, Clear, Advanced Find.
- Table (Center):** A table listing audio files with columns for Name, Time, and References. The file "171015_0009" is selected.
- Transcription Panel (Right):** Shows the transcribed content of the selected audio file. The transcription is in Bengali and includes the following text:

Time	Content
11:42	Cockroach killer ALIF... meeting, HT distributing responsibility of counting studnet
	GOOD
	হিড : (?) তেলাপোকোর যে ঐশ্বর্ঘট আছে না ...হিটিয়ে দিলে উইপোকা উডবে না ।
0:17.8 - 0:34.9	আমাদের দুই তিন ক্লাস আবার যেয়ে আনতে হয়, ওই একই পরে, আর এই খরচ তো আর বাড়াইলো না, যা আছে আছেই, মানবাতার আমলে ।
0:30.2 - 0:40.4	ইঃ : বালক যেন কয়জন ছিল প্রিপারাইমারিতে
0:40.4 - 0:45.5	হড : বালক ২৭
0:45.5 - 0:48.5	ইঃ : ২৭ - ৩৬ হুম ..

Annotations in the image include:

- A yellow circle around the "Sources" panel.
- A yellow circle around the "Transcription" panel.
- Arrows pointing from the "Sources" panel to the "Teachers' Discussion" folder and the "171015_0009" file.
- An arrow pointing from the "Transcription" panel to the Bengali text.

Appendix K: Initial codes and themes

The screenshot displays the NVivo Plus interface with a list of nodes. The following table represents the data visible in the 'Nodes' table:

Name	Sources	References	Created On	Created By	Modified On	Modified By
Backbiting	15	4	31/07/2018 11:53	SHAJEDUR	31/07/2018 15:48	SHAJEDUR
Backbiting ex-celle	1	1	16/07/2018 11:11	SHAJEDUR	16/07/2018 11:11	SHAJEDUR
circumstance when	1	1	16/07/2018 11:15	SHAJEDUR	16/07/2018 11:15	SHAJEDUR
Criticising head te	1	1	04/07/2018 02:18	SHAJEDUR	04/07/2018 02:20	SHAJEDUR
Mocking a colleg	2	1	04/07/2018 02:11	SHAJEDUR	04/07/2018 02:17	SHAJEDUR
Mocking colleague	1	1	29/06/2018 02:24	SHAJEDUR	29/06/2018 02:25	SHAJEDUR
Talking about colle	1	1	21/05/2018 15:35	SHAJEDUR	21/05/2018 15:35	SHAJEDUR
Talking about HT	2	2	21/05/2018 13:32	SHAJEDUR	04/07/2018 02:19	SHAJEDUR
Cases	20	738	29/04/2018 09:13	SHAJEDUR	31/07/2018 15:48	SHAJEDUR
Conflict	3	3	31/07/2018 12:37	SHAJEDUR	31/07/2018 15:48	SHAJEDUR
Creating Professional l	6	6	31/07/2018 12:28	SHAJEDUR	31/07/2018 15:48	SHAJEDUR
Creating Student Ident	9	9	31/07/2018 12:21	SHAJEDUR	31/07/2018 15:48	SHAJEDUR
Domestic	4	4	31/07/2018 13:06	SHAJEDUR	31/07/2018 15:48	SHAJEDUR
Easing Bumout	7	7	31/07/2018 12:55	SHAJEDUR	31/07/2018 15:48	SHAJEDUR
Evaluation	9	9	31/07/2018 12:19	SHAJEDUR	31/07/2018 15:48	SHAJEDUR
Interpersonal - relatio	6	6	31/07/2018 11:56	SHAJEDUR	31/07/2018 15:48	SHAJEDUR
Interview	7	41	31/07/2018 12:59	SHAJEDUR	31/07/2018 15:48	SHAJEDUR
Mentoring	1	2	31/07/2018 13:03	SHAJEDUR	31/07/2018 15:48	SHAJEDUR
Nature of collaboratio	0	0	01/08/2018 02:39	SHAJEDUR	01/08/2018 02:39	SHAJEDUR
Others	11	44	31/07/2018 13:03	SHAJEDUR	31/07/2018 15:48	SHAJEDUR
Planning Lessons	5	8	31/07/2018 11:15	SHAJEDUR	31/07/2018 15:48	SHAJEDUR
Power dynamics of the	0	0	01/08/2018 02:39	SHAJEDUR	01/08/2018 02:39	SHAJEDUR
Problem Solving	10	49	31/07/2018 00:48	SHAJEDUR	31/07/2018 15:48	SHAJEDUR
Requesting help	7	54	29/04/2018 09:16	SHAJEDUR	31/07/2018 15:48	SHAJEDUR