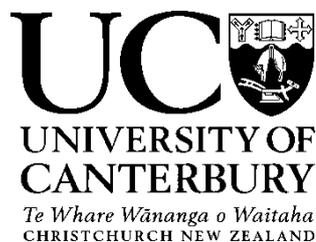


**Investigation of secondary school teachers’
attitudes towards and knowledge about
inclusive education in Bangladesh**

By

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(A thesis submitted in partial fulfilment of the requirements for the
degree of Master in Education)



August, 2011

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List of Abbreviation

ATIES	Attitude Towards Inclusive Education Scale
BANBEIS	Bangladesh Bureau of Educational information and Statistics
CPD	Continuous Professional Development
DPE & CSID	Directorate of Primary Education & Centre for Services and Information on Disability
DSHE	Directorate of Secondary and Higher Education
EFA	Education for All
ERHEC	Educational research Human Ethics Committee
MDG	Millennium Development Goal
MoE	Ministry of Education
NDF	National Disabled Forum
NGO	Non Government Organization
PEDP-2	Primary Education Development project- phase two
SEN	Special Education Needs
SWSEN	Student with special educational needs
TQI-SEP	Teaching Quality Improvement in Secondary Education Project
UNESCO	United Nations Educational, Scientific and cultural organization
UNCRC	United Nations Conventions on the Rights of the Child

Acknowledgements

My acknowledgements to Almighty Allah.

This work would not have been possible without my supervisor, Professor Garry Hornby, whose support, guidance, patience and encouragement are gratefully acknowledged. His constructive advice for this research has been invaluable to me throughout the entire journey of the project. I have valued and appreciated his friendship and eagerness to involve me in all aspects of academic life. I am also grateful to my supervisor Professor David Mitchell for his kind concern and support throughout the duration of the study. I would also like to acknowledge Dr. Anna Wilson for her help and support for this research, particularly with the analysis and her constructive feedback.

I would like to recognize the support I have received from Professor Janinka Greenwood and the College of Education, University of Canterbury, New Zealand. I would also thank Jack Chaney for his friendly help with editing in this study.

I would also like to take this opportunity to express my appreciation to the Teaching Quality Improvement in Secondary Education Project (TQI-SEP), Bangladesh, and the subsequent scholarship that was awarded to me by the project that enabled me to come and study in New Zealand. Thank you to the secondary school teachers in Bangladesh who were the participants in this study.

Finally, I would like to thank my beloved husband Arefin for his support and encouragement throughout this journey and my seven month old boy, Arian, who is not in New Zealand but gave his love and support nonetheless. Thanks to my family, for their love, patience, support and encouragement.

Dedication

This thesis is dedicated to my father whom I have lost during this study.

Abstract

A willingness on the part of teachers to support all children in the mainstream classroom, including children with special needs, is the hallmark of inclusive education. This study used a mixed method design to explore the attitudes towards and knowledge about inclusive education of 30 randomly selected secondary school teachers in Bangladesh. The ATIES (Attitudes Towards Inclusive Education Scale; Wilczenski, 1992) was used to measure teachers' attitudes towards inclusive education. Semi-structured interviews about knowledge of inclusive education were also conducted with six teachers, and analysed using thematic analysis. The findings were that secondary school teachers had predominantly positive attitudes towards inclusive education for children with special needs, except for children who had physical disabilities such as visual or hearing impairments. The results also suggested that secondary school teachers have diverse conceptualizations of inclusive education, and that barriers to the success of inclusive education include insufficient knowledge, lack of training, and lack of teaching materials. The current findings are a step towards increasing knowledge about and implementation of inclusive education, not only in Bangladesh, but also in other developing countries.

Chapter One: Introduction

1.1 Preamble

A variety of initiatives are currently under study and implementation in the field of education in Bangladesh. One of these initiatives is to ensure education for all children, including children with educational needs, in mainstream schools, a concept known as inclusive education. This thesis focuses on secondary school teachers' attitudes towards and knowledge about inclusive education in Bangladesh. The concept of inclusive education has emerged recently in many developing countries, including Bangladesh (Kibria, 2005) and the current research was carried out in the main city of Bangladesh and involved teachers who were currently working in mainstream secondary schools.

1.2 Statement of the problem

In Bangladesh, most mainstream school teachers are used to conducting their classes with a 'homogenous' group of learners (Ahsan & Burnip, 2007). This homogeneity in classrooms is taken for granted; children with special educational needs are not expected to be accommodated in the mainstream schooling system. Teachers are not accustomed to teaching heterogeneous learners in a single classroom and Ahsan and Burnip (2007) suggested that teachers in Bangladesh are not willing to teach special educational needs (SEN) children together with regular students. Harding and Darling (2003) argued that teachers' views, attitudes and knowledge are important in making any change in their classroom practices. This suggests that the knowledge

teachers acquire about inclusive education and the attitudes that they have may affect their ability to adapt, as well as their classroom performance. This is because teachers are the people who work most closely with the students (Burke & Sutherland, 2004), and the classroom philosophy and environment are shaped by teachers' views, attitudes, knowledge and teaching styles (Charema & Peresuh, 1996).

Knowledge and attitudes can also affect the success of the implementation of inclusive education, and as such, it is necessary to explore the attitudes of secondary school teachers towards inclusion. In the present study, this researcher explores Bangladeshi secondary school teachers' attitudes towards, and knowledge about inclusive education.

1.3 Aims of the study

In any educational change, teachers are considered to be the 'change makers' (Ertmer, 2005). This means that teachers are able to contribute to change in education. Changing teachers' attitudes to allow educational change depends upon on some transformation in teachers' beliefs, knowledge, attitudes and practices (Fullan & Stiegelbauer, 1991). These attitudes and this knowledge then have an impact on classroom activities which, in turn, have an effect on the successful implementation of a change in practice. It is important to investigate teachers' beliefs and attitudes because these characteristics act as a lens or filter when they are asked to acquire new knowledge and skills (Wozney, Venkatesh & Abrami, 2006). For this reason, the aim of this study is to explore Bangladeshi teachers' attitudes towards inclusive education, and how these teachers conceptualize inclusive education.

1.4 Significance of the study

Inclusive education allows the inclusion with regular children and children with special needs by placing them together in mainstream classes, to be taught and instructed by mainstream teachers (Ali, Mustapha & Jelas, 2006). It is considered a way to create an environment that can give all children access to education. If teaching is effective and responds to both students' needs and strengths, there is a possibility for all children to learn (Lindsay, 2003). Students with disabilities are able to fit into an inclusive programme because they usually receive some individual support from class teachers to help them complete the required tasks (Chhabra, Srivastava, & Srivastava, 2010). Academic success depends on how much a student learns from teachers, whether they have disabilities or not (Young, Wright & Laster, 2005). Teachers play a vital role in the learning process of students because they are the ones imparting the knowledge. Successful and effective implementation of inclusive education depends upon teachers having adequate knowledge of it through training (Ntombela, 2009) as well as positive attitudes towards it (Loreman, Deppler & Harvey, 2005).

An attitude is broadly defined as the way someone thinks about something or an idea (see later discussion), and it is suggested that for a teacher to contribute to a successful implementation of an inclusive programme, he or she is required to have positive attitudes (Hossain, 2004). While teachers' attitudes towards a concept are traditionally based on their beliefs and knowledge about it; conversely, their understanding of a concept can be influenced by their existing attitudes towards it

(Harding & Darling, 2003). However, there is evidence suggesting that teachers have ‘limited knowledge’ of inclusive education (Sadler, 2005).

The present researcher is a teacher educator and has experience as an inclusive trainer in Bangladesh and her personal experiences and interests are the driving force behind this study. As such, the researcher wanted to explore Bangladeshi teachers' conceptualisations of inclusive education, as well as the ontology and epistemology of it. This study will help the researcher to better understand Bangladeshi teachers' attitudes, views and knowledge about inclusive education in mainstream secondary education settings.

1.5 Research Questions

The following research questions were examined through a mixed-method study, using survey questionnaires and semi-structured interviews in a Bangladeshi context.

The research questions are:

1. What attitudes do secondary school teachers have about inclusive education in Bangladesh?
2. How do secondary school teachers conceptualize inclusive education?

1.6 Research Context

Bangladesh is a developing country in South-East Asia, which achieved independence from Pakistan in 1971. The country is overwhelmed by various issues encompassing the social, political and economic spheres (Rahman, Hamzah, Meerah & Rahman, 2010), and is densely populated (more than 140 million) with a growth

rate of 1.39 (The Daily eProthom Alo, 2011). Education is widely considered a basic human right as well as a tool for socio-economic development and poverty reduction in Bangladesh. As a result the education system of Bangladesh is continually undergoing reforms.

Primary, secondary and higher education are the three major educational layers in Bangladesh. Primary or basic education starts at the age of six, and lasts for five years. It is provided by two major institutional arrangements: the general (mainstream) and the madrasah (a religious system). Secondary education lasts for seven years and is divided into two stages: three years for junior secondary education (children aged 11-13) and two years for each of the two levels of higher secondary education (children aged 14-15 and 16-17). Secondary education has three major branches: general, technical/vocational and madrasah. Higher education is usually completed in the form of a Bachelor's and Master's degree, which take 5-6 years within one of the three general streams: arts, science or social science (BANBEIS, 2010). There is also a separate special education system for children with special needs such as visual or hearing disabilities (Ahsan & Burnip, 2007). Yet another stream of education uses English as the medium of instruction.

The education system in Bangladesh is administered by the Ministry of Education (MoE) and the Ministry of Primary and Mass Education Division in association with other relevant departments, directorates and autonomous bodies. The Ministry of Education formulates policies and programmes for the development of junior and higher secondary level and higher education (MoE, 2011).

Secondary education in Bangladesh comes as part of basic education. The acquisition of the knowledge, skills and attitudes which are necessary to adjust to society, as well as to make an effective contribution to society's and the individual's development, is seen as the responsibility of secondary school education. At the secondary level, government funded schools are mostly concentrated in urban areas (Rahman et al., 2010).

The Government of Bangladesh has recently developed an 'Education for All' (EFA) policy with achievement of the target by 2015. This complies with The United Nations' eight development targets widely known as the Millennium Development Goals (MDGs), which are to be met by 2015 by all nations, and have a special focus on poverty-stricken nations. Out of the eight MDGs, two are particularly concerned with education; one is about universal primary education (all children, boys or girls should complete primary education), and the other is concerned with 'equality' between boys and girls and the empowerment of women. It is agreed upon that all organizations, including the United Nations, will give priority to education. Active measures such as increasing the number of schools and teachers and increasing enrolment are already being accepted both in primary and secondary education. The government maintains that Education for All (EFA) is a policy which is implemented as part of a global campaign. It is also recognised that this policy is essential to develop a prosperous and progressive nation; there is a need to educate everyone irrespective of race, creed, gender, and socio-economic status. Inclusive education is one of the concepts included in this policy as a strategy for achieving EFA (Ahsan & Burnip, 2007).

According to a recent report published by the World Health Organisation (WHO), 15% of the global population (200 million) suffer from some form of disability (The Daily eProthom Alo, 2011). Some of them are children, women or aged persons with disabilities. Charema (2007) claims that, 87% of individuals with disabilities in developing countries live in rural areas. Other statistics suggest that 10% of the total Bangladeshi population have a disability and 89% of the school age children with disabilities are not involved in mainstream education; with the situation being worse in rural areas (DPE & CSID, 2002). In Bangladesh, the total number of children with special educational needs, including those with hearing or vision impairments, is close to one million (The Daily eProthom Alo, 2011). Only 4% of these children have the opportunity to go to school, despite the fact that children with disabilities are entitled to educational facilities based on the United Nations Convention on the Rights of the Child (1989). This fundamental right to education is also acknowledged by the state in the Bangladesh Constitution (Mamun, 2000).

According to the Bangladesh Bureau of Educational Information & Statistics [BANBEIS] (2010), in Bangladesh there are an estimated 81 508 primary schools, 19 083 secondary and higher secondary schools as well as dozens of institutions at tertiary level. Similar to other developing countries, Bangladesh is trying to enact the philosophy of inclusive education on the basis of various international and national declarations : The United Nations Conventions on the Rights of the Child (UNCRC, 1989), the United Nations Educational, Scientific and Cultural Organization Declaration on Education for All (UNESCO, 1990), the Salamanca Statement and Framework for Action (UNESCO, 1994), the Dakar Framework for

Education For All (2000), and the Education for All Handicapped Children Act, PL94-142, the Compulsory Primary Education Act (1990) and UNESCO International Conference on Education, held in Geneva in November 2008 .

The Government of Bangladesh is enacting some laws on inclusive education to safeguard the educational rights and welfare of children with disabilities (Kibria, 2005), such as the Bangladesh Disability Welfare Act (2001), the National Child Policy (1994), and the 1997 National Gender Policy (Ahsan & Burnip, 2007 ; Kibria, 2005; Hossain, 2004).

The Government of Bangladesh is trying to establish inclusive education both at primary and secondary levels through educational projects from the Ministry of Education and with the support of non-governmental organizations (NGOs). There are many NGOs running formal and informal education programmes, for instance targeting community schools (Mamun, 2000). However, the number and capacity of such special schools are not sufficient, as there are vast numbers of children with disabilities who are excluded (Ahsan & Burnip, 2007).

Since inclusive education is a new phenomenon in Bangladesh, inclusion is now being trialled in various projects administered by the Government of Bangladesh. At the primary level, one of the government projects named Primary Education Development Project-phase two (PEDP-2) is now being implemented and at the secondary level, one of the projects being pioneered is the Teaching Quality Improvement in Secondary Education Project (TQI-SEP). The aim of this project is to help the government to enhance the quality of secondary education (government or

otherwise) by managing and coordinating secondary school teacher training more efficiently. Over the period (April, 2005-2011) of this ongoing project a programme on inclusive education awareness has been provided to 41,827 people, including principals and members of school boards. However, only 624 were full-time classroom teachers got training on inclusive education (TQI-SEP, 2010). Inclusive education is included in the formal curriculum of teacher training, but the government has acknowledged inclusive education by referring to it as an important issue in recent education policy.

1.7 Definition of inclusive education

Inclusive education was first introduced from an international perspective at the Salamanca World Conference in 1994 in Spain which included international papers on special needs children (Ainscow & Cesar, 2006). In some countries, inclusive education is thought of as an approach to serve special educational needs children within general education settings. Internationally, however, inclusive education is seen as a system which caters for the needs of a diverse range of learners and supports diversity, effectively eliminating all forms of discrimination (UNESCO, 2001, 2009). Stainback & Stainback (1996) & Alur & Bach (2010) define inclusive education as the placement of all students including children with disabilities in mainstream classrooms with the necessary support given within these classrooms. According to Moore, Anderson, Timperley, Glynn, Macfarlane, Brown, and Thomson (1999), inclusive education is when an “educational environment is given the same level of scrutiny as the child in order to assess the adaptations needed to achieve a more effective match between the child’s educational needs and the

instruction offered” (p.6). It can be considered to be an extension of the comprehensive ideal of education (Thomas & Loxley, 2007). Boer, Pijl and Minnaert (2011) considered inclusive education as a development keeping children with disabilities in mainstream education settings rather than referring them to special schools.

Over the years the terms “inclusive education” and “integrated education” have been used interchangeably in some countries (e.g. the United Kingdom), and the term “mainstreaming” has been used in the United States of America (Hossain, 2004; Long, Wood, Littleton, Passenger, & Sheehy, 2011). In the United States, inclusive education is defined as the education of children with disabilities with their non-disabled peers to the maximum extent appropriate. Some other countries use the term “integration” but the term “inclusive education” is broader than ‘integration’ (Long et. al., 2011). “Integrated education” generally refers to an approach in which children with disabilities and learning difficulties are placed in a mainstream setting and given help to ‘fit’ in, but in an inclusive education system school and school practices were developed to support a diverse range of learners in mainstream settings which made schools more flexible and child-centred (Long et. al., 2011). In recent years, the concept of inclusive education has expanded to allow all manner of disadvantaged children to be educated such as working children (Mitchell, 2010).

Education is the right of all children, and inclusive education aims to ensure that all children have access to an appropriate, relevant, affordable and effective education within their community. This education starts in the home with the family,

and includes formal, non-formal and all types of community-based education initiatives.

According to the teachers' manual of inclusive education provided by teaching Quality Improvement in Secondary Education project [TQI-SEP](2010), from the Ministry of Education, Bangladesh, inclusive education is based on seven principles. These principles are: firstly, all children have the right to education; secondly, all children can learn and they learn from one another; thirdly, every child is different, so instruction should be organized according to their needs; fourthly, inclusive education is student-centred; fifthly, the inclusive approach addresses all aspects of the learning environment; sixthly, learning is possible only when there is cumulative cooperation among teachers, students, parents or guardians, and society; and finally, an active participation of all education agencies in society is important for the successful implementation of inclusive education. According to these principles, inclusive education in Bangladesh is perceived as a cumulative social responsibility to educate all children, and teachers play the key role in its successful implementation. Inclusive education is also perceived to provide a flexible learning environment in which teachers adopt student-centred approaches and understand that individual children have different ways of learning.

Although the Government of Bangladesh has recently taken vigorous initiatives to implement inclusive education in schools, TQI-SEP (2010) notes that it does not necessarily intend to include a new dimension of education in the schools. In fact, the national constitution and the education policy of Bangladesh declared the right of education for all since independence in 1971, but owing to various socio-

economic and political issues, this was not rigorously implemented. At present, the Government is implementing this policy through development projects such as the TQI-SEP. This initiative includes a desire to promote positive attitudes towards inclusive education from teachers, parents, and school administrators (TQI-SEP, 2010). Therefore, Bangladeshi policies are now focusing on raising awareness of inclusive education, developing positive attitudes towards it and creating an appropriate classroom environment.

Inclusive education is an approach which aims to develop a child-focus within schools by acknowledging that all children are individuals with different learning needs and speeds (National Disabled Forum of Bangladesh, 2009). It works as a catalyst for change because it not only enhances education within schools, but also represents an increased awareness of human rights and leads to a reduction in social discrimination between poor and rich. Inclusion has the potential to be a very effective starting point for addressing the Rights of the Child in a range of cultures and contexts.

For this study, inclusive education is considered to be a means of providing educational opportunities for all children, including children with disabilities. This means placing children with physical disabilities, behavioural or academic difficulties or social concerns together with regular children in mainstream classrooms (Chhabra, Srivastava & Srivastava, 2006; Wilczenski, 1992). Using Wilczenski's (1992) scale as an initial guide, this study considers those types of children as those requiring inclusive education. Physical disabilities refer to children with vision or hearing impairments, or children who have mobility problems or need

to use sign language. Children with behavioural difficulties include those who have a tendency to be verbally or physically aggressive, behave in a disruptive manner, or cause conflict with authority. Students requiring academic modification include those children whose academic achievement is below that of their peer group or who need functional academic training. Students with social concerns are those children with extreme shyness or withdrawal problems, or who play truant or have a language or speech disorder.

1.8 Definition of the term of ‘attitude’ in the context of inclusive education

Attitude is a broad concept in social psychology. Triandis (1971) considers attitudes to be one’s thoughts or ideas regarding one’s feelings that influence behaviours related to a particular issue. Gall, Borg and Gall (1996) define attitude as “an individual’s viewpoint or disposition towards a particular ‘object’ (a person, a thing, or an idea)” (p. 273). They consider attitude to be an individual’s way of seeing and reacting to a social phenomenon, and assert that it varies from person to person. An individual’s ways of viewing the world and reacting to it are influenced by many different factors including the individual’s beliefs, knowledge, emotions and their participation in social activities (Eagly & Chaiken, 1993; Triandis, 1971).

There are three major components of attitudes: cognitive, affective and behavioural (Eagly & Chaiken, 1993; Triandis, 1971). The cognitive component consists of one’s knowledge and views about a particular issue, the affective component reflects one’s feelings about something; and the behavioural component is one’s tendency to act towards something in a particular way (Boer, Pijl, &

Minnaert, 2011). In their study of teachers' attitudes towards inclusion, Leatherman and Niemeyer (2005) defined the cognitive component as their participants' "knowledge and thoughts about the causes of the behaviour of children with disabilities in an inclusive setting" (p. 24). They defined the affective component as teachers' motivations or feelings that caused them to make decisions regarding teaching children with special needs. Finally, the behavioural component was defined as the way in which teachers behave or respond to these children. However, the authors noted that their investigation was limited to the cognitive and behavioural components of attitude, because it was difficult to investigate all three components in a single study. In accordance with this, Boer, Pijl and Minnaert (2011) reviewed 26 studies on attitudes towards inclusive education and found that the majority of these considered only the cognitive component when investigating teachers' attitudes. Similarly, Chhabra, Srivastava and Srivastava (2010), Loreman, Forlin and Sharma (2007), Parasuram (2006), studied only the cognitive component of attitude. Very few studies investigated both the cognitive and behavioural aspects of teachers' attitudes, and none of the studies focused on all three components.

In summary, it is clear that attitude is a broad area to be explored in the context of inclusive education, and that the majority of the existing studies have only investigated the cognitive components of attitudes. As a consequence this study aims to investigate the cognitive component of secondary teachers' attitudes, that is, how they view inclusive education and what they think should be done to enhance its practical implementation in secondary schools in Bangladesh.

1.9 Definition of knowledge for this study

Teachers' attitudes are influenced by their beliefs and knowledge. Borko and Putnam (1995) argued that teachers' knowledge guides their decisions in academic practice, and claimed that we must help teachers to increase and expand their knowledge in order to aid them practically. However, knowledge is not something unbiased or neutral; knowledge is shaped by one's ontological and epistemological perspectives of understanding a phenomenon (Kincheloe, 2008). Understanding is grounded in an epistemological perspective of what knowledge is, "how we get it, how we recognize it, how it relates to the truth, how it is entangled with power" (Griffith, 1998, p. 35). Knowledge is a vast term and it is not possible to fully assess people's knowledge of an idea or concept within a single study. In this study, knowledge refers to the way teachers conceptualise inclusive education or, in other words, how they define inclusive education.

1.10 Thesis overview

This thesis is organized into five chapters. Chapter one provides a brief introduction to the background and significance of the study, including definitions of key terms. Chapter two provides a review of previous literature in relation to inclusive education in Bangladesh, as well as outlining some inclusive theory that is relevant to the historical background of inclusive education. Chapter three describes the research methodology used in this study. Chapter four presents the results of both the quantitative and qualitative investigations of the study. Chapter five discusses the findings and limitations and gives recommendations and implications for future research on inclusive education in Bangladesh.

1.11 Summary

Bangladesh is a developing country in which inclusive education is a new concept. Teachers play a vital role in the implementation of inclusive education and this implementation depends on the teachers' attitudes and knowledge. The researcher's personal interest and experience are motivations for the study's exploration of teachers' attitudes towards inclusive education in their own classrooms. This motivation also influenced her to explore teachers' knowledge as well. The research was carried out in Dhaka, the capital city of Bangladesh. It was a mixed-method study with a sample size of thirty for the survey questionnaire and six for the semi-structured interviews. The results revealed that Bangladeshi teachers have positive attitudes towards inclusive education except for children with physical disabilities, and teachers' conceptualization of inclusive education was diverse. The researcher anticipates that findings from this unique study in Bangladesh will assist with understanding the views and conceptualisations that teachers have of inclusive education. Ideally, it will also help education administrators and policy makers understand effective teaching practices in inclusion, and provide better training and support for classroom teachers in Bangladesh.

Chapter Two: Literature Review

2.1 Introduction:

There has been a large amount of international research conducted on inclusive education and a literature review is like a "compass" which guides the study (Hesse-Biber , 2010). This review outlines previous literature that examined the attitudes and knowledge of school teachers about inclusive education from international and Bangladeshi perspectives. The purpose of this chapter is not only to summarize relevant literature, but also to convince the reader of the legitimacy of the researcher's assertions by providing sufficient logical and empirical support (Rudestam & Newton, 2001). In this chapter, the literature is critically evaluated and purposefully used to establish the significance of the inquiry which helps to extend the theoretical understanding of the research issue.

As well as consulting standard database sources (Proquest, EBSCO, Google Scholar, ERIC, Education Research Complete), Bangladesh online resources were also sought from educational departments such as the Bangladesh Bureau of Educational Information and Statistics (BANBEIS) and the website of the Teaching Quality Improvement in Secondary Education Project (TQI-SEP), Ministry of Education in Bangladesh (MoE).

2.2 History of inclusive education:

The historical development of inclusive education spans the decades of the twentieth century and has affected a number of countries. The movement towards inclusive education for children with special needs began in the 1960s (Foreman, 2005). The

United Nations (UN) has made a number of influential declarations regarding inclusive education, such as the Convention Against Discrimination in Education (1960), the Declaration on the Rights of Disabled Persons (1975), and the Convention on the Rights of the Child (1989). In 1990, the World Conference on Education for All was held in Jomtien, Thailand. A further conference in 2000 in Senegal gave rise to the Dakar framework for Education for All, in which the international community pledged to ensure education as a right for all people, irrespective of individual differences. Subsequently in 1994, inclusive education was put forward as a concept at the Salamanca World Conference on Special Needs Education in Spain. The Salamanca statement is arguably the most significant international document in the field of special education (Ainscow & Cesar, 2006). In the Salamanca statement, inclusive education is described as a framework for action that would accommodate all children "regardless of their physical, intellectual, social, emotional, linguistic or other conditions" (Salamanca Statement and Framework for Action, UNESCO, 1994, Article 3). This includes disadvantaged or marginalized children such as street and working children from remote or nomadic populations, children from linguistic, ethnic or cultural minorities, and children with special educational needs and disabilities. The statement argues that regular schools with an inclusive setting are the most effective way to fight against discriminatory attitudes in order to build an inclusive society and to achieve education for all (UNESCO, 1994). Essentially, the Salamanca Conference on Special Needs Education gave approval to the notion of inclusive education (Ainscow & Cesar, 2006). The UNESCO International Conference in Education was held in Geneva in 2008 and the focus of this conference was the inclusion of a more diverse range of

learners, regardless of ability or characteristics, as well as the promotion of respect for the needs and abilities of learners and the elimination all forms of discrimination (UNESCO, 2009).

During the subsequent years, there have been considerable efforts in many countries to affect educational policy and practice towards inclusive education as is appropriate for that country (Ainscow & Cesar, 2006). The appropriateness of separate school systems has been challenged from a human rights point of view (Ainscow, Booth, Dyson, Farrell, Frankham, Gallannaugh, Howes & Smith , 2006). In order to ensure education for all, including those children who have disabilities, it is increasingly asserted that modifying ordinary schools is the most effective way of doing this (Sebba & Sachdev, 1997). Thus, integrated programmes take the form of special classes within ordinary schools. A problem reported by many countries that have national policies regarding integration is that there is evidence of a significant increase in the proportions of pupils being categorised as disabled as a way to earn additional resources for the schools (Booth & Ainscow, 1998). Dissatisfaction with 'integration' led to the concept of 'inclusive education' in many developed and developing countries. The following is a description of some underpinning trends, issues or theories of inclusive education.

2.3 Theories of inclusive education

This section explores various relevant theories, trends and issues within their subsequent fields and the resulting influence on inclusive ideology and practices.

These theoretical underpinnings are “associated with the practice of full inclusion or why others might favour a range of alternative placement options from segregated to integrated special settings for students with special needs” (Zaretsky,2005, p.65).

These theoretical underpinnings are: the psycho-medical model, the sociological response, cultural approaches, school improvement strategies, and critiques of disability studies (Clough & Corbett, 2000). These perspectives are not mutually exclusive. Gradually, all of the perspectives mentioned above became influential through the debate that they generated, first about integration and then more recently about the concept of inclusive education. The current debates around inclusive education will be discussed in terms of these five perspectives.

In the 1950s and 1960s, the psycho-medical model was prevalent. It can be considered as a system of broadly medicalised ideas which essentially saw disabilities as “deficits” and in turn advocated special (or separate) education for individuals with disabilities. In this model, disabilities are viewed as individual pathologies which need medical treatment. Segregated schools were formed for special needs children. By the 1960s and early 1970s this model was reaching the end of its usefulness (Fulcher, 1989) and during this period educational psychology was to have a supporting role in developing the fields of special, integrative and inclusive education. New approaches emerged, and it was ultimately argued that special needs children need to be taught in schools rather than in alternative institutions (Long, et al. 2011).

Sociological response perspectives emerged from the critique of the psycho-medical model. The key movement of this perspective was “social construction”

rather than “individual deficit” (Clough, 2000). Psycho-medical perspectives saw special educational needs as an individual's own characteristics; in contrast, the sociological perspective saw special needs as the outcome of social construction processes. In that period (1950s-1960s) there was an emerging critique pointing out that the earlier mentioned two perspectives placed emphasis on analysis of schools and society, but there was no advice available for classroom teachers. Curricular approaches emerged from this perspective within the 1960s and 1970s.

It was the related parallel development of curriculum and teaching approaches which helped to foster a more inclusive school and college culture (Clough, 2000). In this approach a highly specific task-analysis programme may be seen as intervention at the curriculum level. The special curriculum was a set of teaching plans that was maintained for many years and powerfully reinforced the separateness of mainstream and special schools in the UK. It emphasized that special education teachers need knowledge and proficiency relating to behavioural objectives, goal setting, task analysis and programme writing in their training programme for the 21st century (Mittler, 2004). There were two important contributions from this approach. Firstly, a direct connection between disability assessment and the educational curriculum was made. Secondly, there was recognition that educational difficulties are not exclusive to learners, but rather linked to instructional conditions (Clough, 2000). According to Clough (2000), sound comprehensive schooling results from a systematic organization that highlights strategies for school improvement.

Booth & Ainscow (1998) indicated that this was the time for the removal of boundaries. In the 1990s, another perspective in the critiques of disability studies emerged influenced by school improvement strategies as well as the other aforementioned perspectives. These critiques often emerged from outside education detailing an explicit political response, different from that of the psycho-medical model (Clough, 2000).

It must be stressed, however, that these perspectives played a role in shaping the current views and practices of inclusive education in developed as well as developing countries.

2.4 Inclusive education in developing countries

The majority of the world's population of children with disabilities live in developing countries; out of a world population approximately 150 million live in Africa, Asia, Latin America, the Caribbean and the Middle East (Eleweke & Rodda, 2002).

Despite international declarations regarding the implementation of inclusive education, there are challenges in both developed and developing countries, such as gaps between policies and practices, negative attitudes towards inclusion, and lack of sufficient funding (Charema, 2007; Charema, 2010a; Hornby, 2010a; Kibria, 2005).

In particular, many studies highlight the different challenges faced by developing countries in implementing inclusive education, such as a lack of relevant research information, inadequate support services, lack of appropriate facilities and materials, inadequate training programs and ineffective policies and legislation (Charema, 2007; Charema, 2010a; Eleweke & Rodda, 2002). However, when looking at

implementing inclusive education in different contexts, most of the developing countries such as India, Uganda, Costa Rica, China and Singapore have different policies, and practices of inclusive education.

In the Indian context “inclusive education is rapidly becoming a part of official rhetoric” (Singal, 2008, p.1519). There are approximately 55 million children who are already excluded from the mainstream education system owing to their geographical isolation, social class, religion and different categories of ethnic group based exclusion (Mitchell, 2008). At the same time, the Government of Uganda is now placing children with disabilities (such as hearing disabilities) in inclusive school settings. Another developing country, Costa-Rica, is also developing inclusion with different educational service models such as consulting teachers, educational assistance teams, journeying teams and resource centres, though they have little publication in this field (Stough, 2003).

It is important to consider different socio-cultural contexts when discussing the development of inclusive schools in specific countries. Mitchell and Desai (2009) investigated the existing educational systems in four different countries, namely India, China, Japan and Singapore, and observed different approaches to inclusive education owing to the diverse cultural, political, economic and demographic factors. For instance, the authors found that while China has a commitment to educating mild special educational needs (SEN) children in regular classrooms, Japan has a more diverse policy, providing three types of arrangements for integrating disabled children: special classes, resource rooms and integration for individual students.

Likewise, Singapore has a dual system to educate mildly and severely disabled children.

It is suggested by the various researchers that developing countries also need some changes in their policies to implement inclusive education. For instance, Singal (2008) points out that, in India, in order to bring about the successful implementation of inclusive education, it is necessary to motivate people for their support, to change classroom practices and implement some pedagogical rather than structural changes. Similarly, Kristensen, Onen & Loican (2003) argue that developing countries such as Uganda, are facing similar challenges in the implementation of inclusive education. It is suggested that they also need some support regarding the scarcity of teaching materials, extensive diversity, negative attitudes and large class size (Kristensen, Onen & Loican, 2003). In addition, Stough (2003) suggested that the Costa-Rican Government needs to establish some appropriate educational policies to guard against potential challenges, including a shortage of trained teachers in the area of secondary education. Similarly to some of these other developing countries, Bangladesh has tried to implement inclusive education in its mainstream education system (Kibria, 2005).

2.5 Development of inclusive education in Bangladesh

This section focuses on the exploration of the policies and laws related to the implementation of inclusive education in Bangladesh. This is because key personnel are influenced by their own beliefs, knowledge and attitudes about inclusion and the

implementation of it. The effect of this, therefore, can readily determine whether it is carried out both at a national and local policy level (Meng, 2008).

Bangladesh is one of the developing countries in Southern Asia in which inclusive education is evolving gradually (Ahsan & Burnip, 2007). This development is taking place on legal conceptual bases such as the United Nations Convention on the Rights of the Children (UNCRC, 1989), the UNESCO Declaration on Education for All (UNESCO, 1990), the Salamanca Statement and Framework for Action (UNESCO, 1994), the Dakar Framework for Education For All (2000), and the Education for all Handicapped Children Act, PL94-142 (Ahsan & Burnip, 2007; Kibria, 2005; Hossain, 2004). The Government of Bangladesh passed national laws to promote inclusive education, such as the Compulsory Primary Education Act (1990), the Bangladesh Disability Welfare Act (2001), National Child Policy (1994), and the National Gender Policy (1997) (Ahsan & Burnip, 2007).

The Government of Bangladesh is trying to promote a new objective in the name of inclusive education within its existing education policy of Education for All (EFA). Inclusive education is a process aimed at responding to student diversity, increasing their participation and reducing social exclusion. The Government of Bangladesh has made education a priority to meet the goal of poverty reduction in the country and inclusive education should be seen as a high priority strategy to achieve the goals of Education for All (EFA) by 2015 (TQI-SEP, n.d). Bangladesh became a signatory to the EFA plan in 2000; the original conference for the plan was held in 1990 in Jomtien, Thailand and formulated a National Plan of Action based on the EFA. Since then, remarkable progress has been made in inclusive education.

The National Education Policy of Bangladesh addresses these issues, and identifies the inclusion of excluded children into mainstream education as a priority initiative. The importance of this was mentioned in the first educational policy in Bangladesh, widely known as the Dr. Qudrat-e-Khuda Education Commission Report, which was formed in 1972. From the period 1972 to 2003, there have been different educational reforms (MoE, 2011) such as: the Mofizuddin Education Commission (1988), the Shamsul Haque Education Committee (1997), the Dr. M.A. Bari Commission (2002) and lastly the Mohammad Moriruzzaman Mia Commission (2003). In 1972 the Constitution of Bangladesh obligated the Government to establish a uniform system of education and extend free compulsory education to all children. Article 17 of the Constitution of Bangladesh describes the education system as,

Establishing a uniform, mass oriented, and universal system of education and extending free and compulsory education to all children to such stage as may be determined by law. (Constitution of the People's Republic of Bangladesh, 17(a), p.5)

In 2000, Bangladesh implemented a new education policy in which the idea of including all children in mainstream education received official recognition (Ahsan & Tonmoy, 2002). In 2003 the Moniruzzaman Mia education committee also emphasized the principle of equal access to education for all regardless of religion, caste and creed, sex, economic status and geographical variation (MoE, 2011). Current educational policy emphasizes creating the types of education which ensure equal education for all children (National Education Policy of Bangladesh, 2010, chapter 18).

2.6 Relevant research on teachers' attitudes towards and knowledge about inclusive education

Teachers' views, attitudes towards and knowledge about inclusive education are major factors in the worldwide movement towards inclusive education. In spite of differences in national and cultural contexts, international studies about inclusive education should still be generalisable to the overall topic of inclusive education for special educational needs children in mainstream schools.

There are several studies on the attitudes and knowledge in different countries. Some research only focused on attitudes (Chhabra, Srivastava & Srivastava, 2006; Meng, 2008), some focused on knowledge, meaning their conceptualization of inclusive education (Hodkinson, 2006) and some examined both knowledge and attitudes (Harding & Darling, 2003; Boer, Pijl & Minneart, 2011).

A qualitative study by Harding and Darling (2003) investigated teachers' understanding of inclusion in the United States. The purpose of this study was to determine teachers' knowledge of, as well as attitudes towards inclusion. The findings indicated that teachers had had no in-service education to prepare them for the inclusion process and had no experience with inclusion, yet all teachers expressed primarily positive attitudes towards it.

Kristensen, Omagor-Loican and Onen (2003) used a mixed-method approach to investigate teachers' experience with, and attitudes, perceptions and knowledge about inclusive education in Uganda, as well as looking at possible barriers. Their results indicated that participants had relatively positive attitudes towards the

inclusion of learners with special educational needs. Leung and Mak (2010) came to similar conclusions in a recent study that examined teachers' attitudes, understanding and training regarding inclusive education in Hong Kong, also using a mixed-method design. The study's findings were that most teachers in inclusive schools have a basic but incomplete understanding of inclusive education, and believed that they needed additional training.

2.6.1 Teachers' attitudes towards inclusive education

Most of the research on attitudes revealed that school teachers can have a variety of attitudes such as positive, negative or neutral or both. Recent research reported that mainstream school teachers' attitudes towards inclusion are mixed (Burke & Sutherland, 2004; Johnson, 2001).

From the range of studies discussed here, most reported that teachers possess positive attitudes or views on inclusive education (Ali, Mustapha & Jelas, 2006; Dulció & Bakota, 2009; Loreman, Forlin & Sharma, 2007; Ross-Hill, 2009). If teachers have positive views on inclusion, then they value all children, whatever their needs, and interact with them accordingly (Whyte, 2005). Ali, Mustapha and Jelas (2006) used a self-rated questionnaire with teachers in Malaysia to measure teacher attitude. Their findings were that overall teachers had positive attitudes towards inclusive education and agreed that inclusive education intensifies social interaction, while it decreases negative stereotypes of special educational needs children. The authors argued for cooperation between mainstream and special education teachers in order to implement inclusive education. Similarly, Dulció and Bakota (2009) examined teachers' views by survey and found that teachers had supportive views

towards the inclusion process. In their study Loreman, Forlin & Sharma (2007) compared four countries' teacher attitudes, using a questionnaire and found that teachers are positive towards inclusive education for children with special needs, mainly with social, emotional and behavioural disabilities. Ross-Hill (2009) shared the same view after examining the different attitudes of elementary and secondary school teachers towards inclusion, and how best to develop an inclusive environment based on these attitudes. The results indicated that most teachers either supported inclusion practices in regular classrooms or did not have strong views on inclusive education. Croll and Moses (2000) investigated teachers' views on inclusive education and found that nine out of ten teachers thought that the regular classroom was the right place for children with disabilities. They suggested that pre-existing teacher attitudes and views are fundamental to their resulting implementation and experiences of inclusive education.

On the other hand, the results of other studies indicate that teachers have relatively negative attitudes towards inclusive education. Lifshitz, Glaubman and Issawi (2004) found that Israeli and Palestinian school teachers' views were not supportive of inclusion in the education system. This finding is similar to another study by Chhabra, Srivastava and Srivastava (2010). Their quantitative study in Botswana showed that school teachers held somewhat negative attitudes. They also found that teachers felt unprepared and afraid to work with children who have learning disabilities because they do not have enough knowledge about how to teach in integrated settings. Another investigation in Ghana revealed that existing concerns and attitudes of teachers about inclusive education affected their willingness to

welcome and implement it (Agbenyega, 2007). In their literature review Boer, Piji and Minnaert (2011) also stated that the majority of teachers were undecided or had negative views about inclusion, and teachers did not feel competent or confident to teach pupils with various disabilities. They argued that the reasons for the varied attitudes of teachers were influenced by the participants' gender, experience, and length of teaching, training and the type of disability in question.

Alghazo and Gaad (2004) used a likert scale and semi-structured interviews to measure teacher attitude and found that teachers held neutral attitudes. There was a third dimension of findings when two attitudes were present. Meng (2008) examined the attitudes of 252 school teachers in both rural and urban China towards inclusive education and found that these attitudes were a combination of negative, neutral and positive attitudes. This study revealed that teachers' attitudes could be positive, negative, or indifferent; that is, a proportion of teachers did not express either positive or negative attitudes. Meng thought that these findings were not similar to western findings because of western countries' tradition of emphasis on the attitudes of stakeholders. Separate special education was emphasized by those participants who had shown negative attitudes and Meng also found that urban teachers had more negative attitudes towards inclusion than rural teachers, and that teachers' attitudes were not influenced by resources, teaching year or relevant special education training. Hodkinson (2006) criticized this notion, saying that inclusion is primarily influenced by external factors such as funding rather than individual differences among teachers.

All the authors, researchers and practitioners believed that teachers' attitudes or views have a huge impact on the progress of inclusive education for children with special needs (Levins, Bornholt, & Lennon, 2005; Leatherman & Nieyemar, 2005; Chhabra, Srivastava & Srivastava, 2010). These attitudes and views are influenced by experience and knowledge (Mahbub, 2008). From previous research it is assumed that teacher attitudes are essential for the success of inclusive education and the success of the integration of children with disabilities including physical, academic, behavioural and social disabilities (Levins et. al., 2005). Teachers were also found to differentiate their attitudes or views according to the type of disability (Glaubman & Lifshitz, 2001).

2.6.1.1 Teachers' attitudes towards inclusive education for children with physical disabilities

Many secondary teachers believed that the child included in the mainstream classroom must have similar physical attributes as other students so they are not seen as different (Singal & Rouse, 2003). Similarly, Mushoriwa (2001) evaluated teacher attitudes towards children with physical disabilities, and the results revealed that the majority of school teachers were not supportive of physically disabled children, particularly visually impaired children and children with hearing disabilities. These findings are supported by Wilkins and Nietfeld (2004) who found negative views and Chhabra, Srivastava & Srivastava (2010) who found that teachers were not supportive of children with physical disabilities. Participants in these studies all tended to claim that children with physical disabilities are not suited to regular classroom environments. In addition, Charema (2010b) and Lifshitz, Glaubman and

Issawi (2004), found that teachers who showed supportive attitudes towards children with physical disabilities, such as hearing disabilities, did not always show the same support for children with academic or behavioural difficulties. Interestingly, in another study, Glaubman and Lifshitz (2001) determined that teachers were unwilling to work with those with auditory or visual impairments in their mainstream classrooms owing to their lack of training or support from the government.

2.6.1.2. Attitudes towards inclusive education for children requiring academic modification

Singal (2006b) concluded that many teachers believe that children who need academic moderation would be unable to cope with the level of academic demand in the mainstream schooling system. She argued that such children should be taught in a separate system of segregated education. She also noted that inclusion programs are not fruitful for the average teacher or child. There is a negative correlation between students' academic ability and their level of disability such as dyslexia or autism (Slavin, 2011). However, from a comparative study in inclusive and separate settings, the Canadian Council on Learning (2009) found that there was a favourable academic outcome for students with special education needs educated in inclusive settings.

2.6.1.3 Teachers' attitudes towards inclusive education for children with behavioural difficulties

Alghazo and Gaad (2004) found that teachers were the most negative about the inclusion of pupils with behavioural difficulties. It is reported that some teachers

would not agree to include children with severe difficulties or those who displayed bad behaviour (Singal, 2006b). This finding is supported in a recent New Zealand study by Hornby (2010a) who argued that inclusive education is not applicable to all students with special educational needs (SWSEN) regardless of their degree of disability. He studied two groups of former students, one from a school for students with learning difficulties and the other from one for students with behavioural difficulties. The results revealed that for many of the students, inclusion was limited with regard to occupation, education and society adjustment.

2.6.1.4 Teachers' attitudes towards inclusive education for children with social concerns

According to Dulció and Bakota (2009), teachers' views are not impending and can be changed over time. Their attitudes are comparatively flexible about students with social concerns, such as children who are extremely shy, truants or have minor speech or language difficulties (Wilczenski, 1992). Chhabra, Srivastava and Srivastava (2010) found that teachers' have the most favourable attitudes towards those students who are shy or withdrawn. Children who feel shy should be enabled to engage fully in daily school activities (Hodkinson & Devarakonda, 2009). Gracia-Gracia (2008) shared her views about absenteeism in an underprivileged area in Spain and asserted that apparently absenteeism is not a major problem. Furthermore, Sharma and Deppler (2005) concluded that teachers have a willingness to work with a child with social problems, even if they do not have the requisite training, which should be provided by the government and its education policies.

2.6.2 Teachers' knowledge of inclusive education:

Teachers' knowledge is the key to successfully implementing any educational program. In this study knowledge was defined as the way teachers conceptualise inclusive education. Hodkinson (2005) strongly believes that the implementation of inclusive education is dependent upon the way individual teachers conceptualise an idea or concept such as inclusive education.

There are several studies on this issue and Lawson, Parker and Sikes (2006) used a qualitative approach in order to understand their experiences and conceptualisations of inclusive education. Their findings revealed that conceptualisation of inclusion varied among participants and teachers' narratives about inclusive education focused on the human aspect of day-to-day involvement with individual pupils. Another study by Singal (2008) focused on knowledge and aimed to understand inclusive education at various levels of the Indian education system by conducting a qualitative study. She focused on the perceptions, practices and experiences of professionals in an inclusive classroom situation in India. The central concern of this research was to listen to participants in order to know more about what actually goes on in inclusive classrooms. She suggested that teachers' knowledge and skills for developing inclusive teaching practices, as well as the encouragement of a change in existing values, beliefs and attitudes, were essential to ensure full participation of all children in a school setting. Similarly, another study by Hodkinson (2006) examined secondary teachers' knowledge and understanding of inclusion. His aim was to find out how teachers in England, especially newly qualified teachers, conceptualised inclusive education, as well as discovering their

attitudes towards it. The author found that this population also had diverse conceptualisations of inclusion, which were mediated by classroom practices. Hodkinson and Devarakonda (2009) examined how inclusion is understood by teachers in India through a literature review and in-depth semi-structured interviews. The study findings revealed that inclusion is often not well understood and seen by teachers as a vague and complex concept. The authors argue that if inclusive education is to truly become effective, then there is a requirement for teachers to be able to gain more knowledge and understanding of it.

Most research revealed that teachers' conceptualisation of inclusive education is diverse. Hodkinson (2006) reported that 40% of participants conceptualise inclusive as "education for all". These participants believed that all mainstream schools should be inclusive. In contrast, Leung and Mak (2010) found that 60.8% of participants interpreted inclusive education as education involving students with special educational needs in mainstream schools and programmes. Sadler (2005) found that 87.6% of teachers reported that they have "limited" or "very limited" knowledge of inclusive education. None of the teachers rated themselves as having sufficient knowledge. Similarly, Gaad and Khan (2007) found that teachers do not have enough knowledge and training to address the needs of students in integrated settings. Participants considered their limited knowledge to have an influence on their attitudes, suggesting that lack of knowledge may be an attitudinal barrier, as well as a practical barrier, to the implementation of inclusion.

2.7 Focus of the study

The majority of the studies on exploring teachers' attitudes towards and knowledge about inclusive education were conducted in developed countries (Harding & Darling, 2003; Ross-Hill, 2009), and relatively few studies in developing countries are found (Ali, Mustapha & Jelas, 2006; Chhabra, Srivastava & Srivastava, 2010). This indicates that there is a gap in the knowledge of developing countries' perspectives. Therefore, this study endeavours to explore Bangladeshi secondary school teachers' attitudes towards and knowledge about inclusive education. There are a small number of studies on inclusive education in Bangladesh, and the majority of those are literature review based. For example, Ahsan and Burnip (2007) reviewed some policy documents and statistical reports related to inclusive education in Bangladesh, and compared these with some other developing and developed countries' policies and research works; and finally suggested some strategies to implement inclusive education in Bangladesh. Similarly, Hossain (2004) and Kibria (2005) reviewed some literature on inclusive education in developing countries, other than Bangladesh, and summarised the barriers and challenges the developing countries are facing to implement inclusive education; and they suggested considering these challenges in Bangladesh. There has been one case study in this field in Bangladesh conducted by Mahbub (2008) who explored children's perspectives of inclusive education. Mahbub (2008) selected some non-government primary schools supported by national and international donors and interviewed primary students about their experiences of including SEN children in their class. The study concluded with some recommendations from the children's perspectives. Clearly, there is a gap in empirical studies on understanding teachers' views and

knowledge about inclusive education in Bangladesh, particularly from the secondary teachers' perspectives. Therefore, the purpose of this study is to explore Bangladeshi secondary teachers' attitudes towards inclusive education and how teachers conceptualise inclusive education.

2.8 Barriers to inclusive education

As mentioned previously, inclusive education is a novel idea in Bangladesh, and according to recent studies, its implementation is developing promisingly (Ahsan & Burnip, 2007; Ahuja & Ibrahim, 2006; Hossain, 2004; Kibria, 2005; Leung, & Mak, 2010; Mamun, 2000). These studies point out the challenges, including lack of equipment and appropriate educational materials, scarcity of teacher training, scarcity of knowledge of inclusive education and large sized classrooms.

2.8.1 Lack of equipment and appropriate educational materials

The accommodation of a wide range of students in the same classroom gives rise to many challenges. Simple teaching resources that could normally be produced locally, such as maps, charts and other illustrative devices are not available in many educational institutions in developing countries (Eleweke & Rodda, 2002). The lack of facilities and teaching materials are major impediments to the implementation of inclusive education (Charema, 2007; Kristensen et al., 2003; Stubbs, 2002). Mamun (2000) noted that in Bangladesh, the reason for this shortage in material is the absence of policy regarding the inclusion of children with disabilities. Kristensen, et al. (2003) suggested that the production of low cost educational materials could be a potential solution to this problem. However, adequate funding is required in order to

purchase the appropriate teaching materials. Therefore, according to Kristensen et al.,(2003) appropriate policies which include adequate funding for teaching materials are essential for the successful implementation of inclusive education.

2.8.2 Scarcity of teacher training

To implement inclusive education in classrooms, it is important that teachers provide an effective and stimulating educational environment for all pupils. In addition, teachers' experience and their training significantly influence their attitudes (Meng, 2008; Leatherman & Niemeyer, 2005). Despite the fact that it is essential to staff inclusive classes with skilled and trained teachers, there is a shortage of inclusive teacher training programmes. This is a major problem to be solved if the quota of trained teachers is to be met in Bangladesh (Hossain, 2004; Kibria, 2005). Research indicates that adequately trained professionals are required for students with special needs (Eleweke & Rodda, 2002). In addition, support personnel for training programmes such as audiologists, psychologists, speech and language pathologists, communication support workers and interpreters are very scarce in many developing countries (Eleweke & Rodda, 2002). Fullan and Miles (1992) suggest that reform in professional development is essential.

In Bangladesh, the special education department at the Institute of Education & Research (IER) and the Bangladesh Institute for Special Education take the lead in organizing short courses for Teachers Training Colleges (TTCs). The superintendents of the PTI (Primary Training Institute) will organize workshops at their respective levels, and all of the above institutes may also offer a Diploma for a Special Education programme under the PEDP-2 (Primary Education Development

Programme - phase two). These courses are designed specifically for the preparation of teachers who will be working in inclusive settings (Hossain, 2004). Another Government educational project in Bangladesh, the TQI-SEP has also taken some initiatives to facilitate inclusive education by offering continuing training and support to secondary school teachers (Ahsan & Burnip, 2007). On the other hand, Eleweke and Rodda (2002) suggest that a Western model of training from a developed country could be inappropriate for the existing situation in developing countries. As a result, Singal (2008) believes that training is not the sole solution for this challenge; it is also essential to change teachers' values, beliefs and attitudes.

2.8.3 Insufficient knowledge of inclusive education

Teachers' existing knowledge is not always sufficient for inclusive teaching. Many teachers have claimed that inclusion policies forced them to enter areas they were unsure about or not interested in (Vaughn, 1996; Ali, Mustapha & Jelas, 2006). On the other hand, the appropriate educational background of teachers does have a positive impact on inclusive teaching (Meng, 2008).

2.8.4 Large Class size

In developing countries, teachers often have negative attitudes towards inclusion because of larger class sizes than in developed countries (Ali, Mustapha & Jelas, 2006; Chhabra, Srivastava & Srivastava, 2010). In Bangladesh at secondary level, most of the schools have 60-70 students in the same classroom. These larger class sizes pose particular classroom management problems, possibly making teachers reluctant to pay extra attention to special educational needs children in mainstream

classrooms. These issues are all challenges related to inclusion, yet there are profound successes that can result from implementing inclusive education practices in classrooms.

2.9 Success of inclusive education

Hornby (2010b) states that inclusive education could be beneficial to children with special educational needs when parents are involved. Deng and Guo (2007) found that inclusion is beneficial for all students and children without disabilities can have the opportunity to help and care for others. It is supported by Ali, Mustapha and Jelas (2006), as in their study they argued that inclusive education enhances social interaction and inclusion among students and reduces negative stereotypes towards special needs children. Leatherman and Niemeier (2005) also reported that inclusive education is beneficial to both disabled and non-disabled children. They found that inclusion had benefits for disabled children as well as for their peers, teachers and the school as a whole. Leung and Mak (2010) added that inclusion is also valuable to society.

2.10 Criticism of inclusive education

Inclusive education has gained momentum; it has a growing amount of scholarly support and has been described as an “umbrella term against a storm” (Charema, 2010, p. 87). However, inclusive education has also come under considerable criticism from those who argue that inclusion is an imprecise “one size fits all” approach (Fuchs & Fuchs, 1994). Inclusive education is considered to be a “troubled concept” because different people define it differently and poor consensus about

what the term encompasses (Slee, 2008, p. 99). There is debate on how to describe students' identity in an inclusive class and how a school culture should be shaped to fit with inclusive education (Slee, 2008). Hornby (2010a) voiced strong criticism of inclusive education, in particular highlighting the lack of clarity over even the meaning of the term 'inclusion'. The ambiguity insofar as 'inclusive schools' or an 'inclusive society' (ibid) remains questionable.

Lipsky and Gartner (1999) argue that inclusive education has few positive outcomes for special needs children who need specialised services that can only be provided outside regular classrooms. Hegarty (2001) reported in his critical examination of inclusive education that there are three main points to inclusive education. Firstly, he argued that the notion of inclusion must signify something other than excellence in education or good schools, which some definitions seem to highlight. Secondly, he also asserted that for some students with special educational needs (SWSEN), being included in a regular school environment is neither possible nor desirable (e.g., students with a visual impairment will need mobility training outside a regular classroom). Finally, he claimed that while the aim of inclusion is important, an over-emphasis on inclusion runs the risk of distorting the hierarchy of values in education, which are the core objectives of developing young people's potential and equipping them for adult life.

Hornby (2010a) also raised the issue of confusion surrounding the goals of inclusion. This confusion is related to the definition of inclusive education, labelling, curriculum and etiology. He claimed that "this confusion applies to all children but is particularly important for children with special educational needs (SEN)" (p.6).

Academic achievement is not the only goal of inclusion; inclusion should also be focused on the development of life and social skills that allow a disabled individual to function as normally as possible.

Brown (2010) also discusses the confusion and controversy about the semantics of inclusion. He notes that when the term is used in a different culture, it may be applied in different and sometimes even contradictory ways. Following the trends of the inclusive movement in the USA and other Western countries, some developing countries tried to instil the philosophy of inclusive education in their regular education system (Kibria, 2005). In this context, Singal (2008) believes that growing Northern literature on special and inclusive education can help us to re-examine and reflect on developments and suggest some ways to contextualise Southern realities. In contrast, Charema (2007) believes that Western ideologies and literature are not appropriate for installing inclusion in the existing teacher training programmes of developing countries, and that achieving a Western standard in inclusive education will remain unrealistic in developing countries because of economic and educational developmental difficulties. As Artiles and Dyson (2009) noted,

The inclusion efforts of the affluent Western democracies, where all resourced segregated forms of special education are being merged with equally well resourced regular education, seem to be quite different from those of many economically poorer countries where special education has never been fully developed and where regular education is desperately lacking in resources (p.3-4).

Therefore, a demand for diverse policies of inclusive education may arise in different countries on the basis of their unique socio-economic and political contexts. On the contrary, a few studies (Heiman, 2002; Priestly & Rabiee, 2002) claimed that inclusion would be of little benefit to children with disabilities and consequently questioned the advantages of inclusion. Moreover, the impact of inclusion can surface in different ways. Chhabra, Shrivastava & Srivastava (2010) for example found that inclusion can lead to a decline in the academic standard of students.

2.11 Summary

Inclusive education is progressing in developed and developing countries on the basis of international declarations. The Government of Bangladesh is also trying to pass some initiatives in favour of inclusive education, which would be helpful for its successful implementation. Teachers are key figures in the implementation of inclusive education which is a controversial issue, as can be seen from this literature review. There are also some barriers relevant to teachers' attitudes and knowledge which are considered to be major challenges to the successful implementation of inclusive education in Bangladesh (e.g. insufficient knowledge of inclusive education, lack of training, lack of teaching materials and large class sizes).

Chapter Three: Methodology

3.1 Introduction

This chapter provides a description of the nature of educational research and presents the research design and methodology used in this study. Research has a very important place in education (Bell; 2005; Cohen, Manion & Morrison, 2007) and educational research is based on some ways of thinking and certain methods of establishing beliefs and knowledge (Drew, Hardman & Hosp, 2008).

Traditionally, researchers use three lenses for educational research, namely quantitative, qualitative and mixed-method designs (Bell, 2005; Cohen, Manion & Morrison, 2007). This methodology chapter describes the mixed-method design. By using such a design, the researcher can use the strengths of both approaches and effectively triangulate the data obtained by combining the two approaches. This chapter also describes the data collection procedures, the research procedure, and the method of sampling that was used to select the research participants. The chapter also discusses the survey questionnaire and semi-structured interview schedule which was used to collect quantitative and qualitative data respectively. There is also discussion of ethical considerations, validity and reliability issues, and some of the problems which were encountered during data collection. As a conclusion to the methodology, a summary of the whole process by which this study was carried out is also provided.

3.2 Nature of educational research

According to Bogdan and Biklen (2007), we can define research as seeking information through a methodical process to add to one's own body of knowledge and potentially to that of others by discovering non-trivial facts and insights. The researcher in this study describes her research as a systematic way of asking questions, a systematic method of inquiry, and a pathway that can be used to gain more knowledge. Lichtman (2010) explained that by conducting research, a researcher can also reveal emerging knowledge phenomena and in this way may generate new knowledge.

In essence, Drew, Hardman and Hosp (2008) think that research is conducted to solve problems and to increase levels of knowledge and understanding. This study involves investigating secondary teachers' knowledge about inclusive education as well as their attitudes towards it.

3.3 Purpose of this study

It is also important for the researcher to understand why, how and when a research strategy is needed to collect data, how the data will provide useful information, and how to avoid pitfalls in the research (Morse & Niehaus, 2009). According to Drew, Hardman and Hosp (2008) it is important to discuss in brief the purpose of the research. Denzin, (2010) adds that the nature of a piece of research is determined by the purpose of the study. The present study sets out to investigate secondary school teachers' attitudes and knowledge in relation to inclusive education in Bangladesh, using a mixed method approach. For this study attitude is considered within cognitive

perspectives such as those of Chhabra, Srivastava and Srivastava (2010). However attitude is a broader concept in social psychology, and according Eagly and Chaiken (1993) there are three perspectives of attitude, cognitive, affective and behaviour. While the cognitive perspective is related to teachers' knowledge or beliefs about educating children with special needs, the affective perspective considers their feelings, and the behavioural perspective reflects their tendency to respond to inclusion. Boer et al. (Boer, Pijl & Minnaert, 2011) found that there are many studies on teachers' attitudes to inclusive education and noted that none of these studies investigated all three perspectives, because it was reported to be difficult to investigate them all together in a single study. They found that the majority of the studies explored teachers' cognitive perspectives of attitude in relation to teachers' knowledge and beliefs or views, because, as they explained, knowledge and views guide one's decision about interacting with an issue. Accordingly, this study also aims to investigate the participant secondary teachers' attitudes or views.

3.4 Research methodology

The aim of this section is to introduce and describe different methodological approaches, including a description of research paradigms. There are different methodologies used by different researchers for their research purposes, such as qualitative, quantitative, literature review, action research and mixed-method. A quantitative approach is usually based on observations that are structured and controlled (Punch, 2009). On the contrary, qualitative research is based on a more holistic view and it is not about answering questions such as 'to what extent' or 'how well' something is done. In a literature review researchers can make decisions by

evaluating and integrating past researches (Cooper, 1989). The field of action research is practitioner-based and is carried out by teachers in their classrooms with the goal of improving pedagogy and student learning (Philips & Carr, 2010). These methodological approaches are like communities in that members of each group share similar backgrounds, methodological orientations and research ideas and practices. Each of these communities of researchers has been linked with different research paradigms (Teddlie & Tashakkori, 2009).

3.4.1 Research paradigm

In educational research there are a few research paradigms within which quantitative and qualitative approaches can be best worked. The objective of the research determines the paradigm (Denzin, 2010). Researchers can use both research paradigms, which have emerged from different philosophies, to shape their understanding of the study. Quantitative purists articulate assumptions which are commonly called a positivist philosophy (Johnson & Onwuegbuzie, 2004). In contrast, the interpretivist paradigm is always focused on trying to understand the meaning events have for persons, and their world (Lichtman, 2010). Their work “portrays a world in which reality is constructed, complex and ever changing” (Rudestam & Newton, 2001, p.10). Qualitative findings are always based on human experiences and stories which cannot be measured, counted or controlled (Cohen et al., 2007; O' Leary, 2004). Qualitative purists also argue for the superiority of constructivism, realism, idealism, humanism and sometimes post-modernism. In this ‘paradigm war’ mixed-methodology emerged as a superior research method compared to any mono-method research because of its methodological pluralism or

eclecticism. This can be considered as a key feature of this paradigm according to the pragmatist view (Johnson & Onwuegbuzie, 2004). Pragmatists support their position by asserting that qualitative and quantitative approaches are alike in the fundamental values on which they are founded, including believing in the value of inquiry and believing in the theory of facts. This also means, belief that reality is numerous and constructed, and belief in the shortcoming of knowledge (Teddlie & Tashakkore, 2010). The method a researcher employs can yield convincing answers to the questions that the investigation is intended to settle. In this study the researcher is influenced by the pragmatist point of view and that is the reason behind the utilisation of a mixed-methodology.

3.4.2 Paradigm of mixed-methodology

Mixed-method research can be defined as a third path (Gorard & Taylor, 2004), third paradigm (Johnson & Onwuegbuzie, 2004) or third methodological movement (Teddlie & Tashakkore, 2009) in the field of educational research. It emerged as an alternative to the dichotomy of qualitative and quantitative approaches. When we view an object from two perspectives or study a social phenomenon using two methods then it turns into a mixed-method approach (Gorard & Taylor, 2004). For instance, as shown in Figure 1, the lower two circles represent the two approaches (quantitative and qualitative) and the study object is represented in the upper circle:

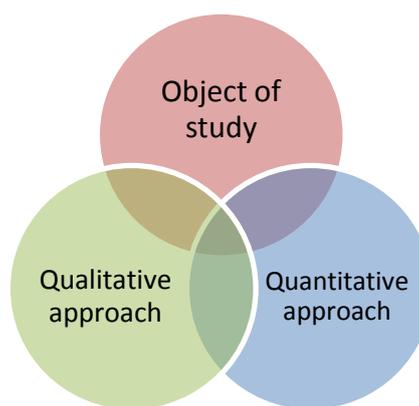


Figure:1 A complementary combination of approaches.
 (Source: Gorard, S. & Taylor, C. (2004). *Combining methods in educational and social research*. McGraw-Hill, p. 47.)

3.4.2.1 Rationale for the use of mixed-methodology in this study

The goal of “mixed-method research is not to replace either of these approaches but rather to draw from the strengths and minimize the weakness of both (quantitative and qualitative) in single research studies and across studies” (Johnson & Onwuegbuzie, 2004, p. 244). An amalgamation of quantitative and qualitative methodologies is often an excellent choice of method because this approach mixes the rigor and precision of experimental designs and quantitative data with the depth of understanding of qualitative methods and data.

Over the past decades, many studies (quantitative, qualitative, and mixed-method) have been undertaken in a bid to reveal teachers’ attitudes to and knowledge of inclusion. Some researchers have tried to measure teachers' views or attitudes by using quantitative methods (Ali, Mustapha & Jelas, 2006; Chhabra, Srivastava & Srivastava, 2010; Meng, 2008) whereas others tried to find out participant knowledge of inclusive education by using qualitative methodologies (Harding & Darling, 2003;

Lawson, Parker & Sikes, 2006; Mahbub, 2008). Moreover, most researchers tried to find out about both teachers' attitudes and knowledge within a single, mixed-methodology study (Kristensen, Omagor-Loican & Onen (2003); Leung & Mak, 2010; Hodkinson, 2006). That is why the researcher of this study wants to explore both attitudes towards and knowledge about inclusion using a mixed-methodology design.

The objective of this study is to find out about secondary school teachers' attitudes towards and knowledge about inclusive education. Sometimes the information obtained from a questionnaire may not be sufficient, as even a highly experienced teacher would not be able to give information which allows accurate inferences about the quality findings (Denzin, 2010). Then qualitative information is required.

3.4.2.2 Quantitative Research

Quantitative research, according to Creswell (2008), is defined as investigation process that can be used for exploring the trends and explaining the relationship among different variables. A quantitative research approach depends on quantitative data such as survey questionnaires or focuses on testing a hypothesis confirmation (Johnson & Christensen, 2000; wiersma & Jurs, 2009). Here, the focus of the quantitative research was determining teachers' attitudes towards inclusive education with children with special needs in the mainstream classroom.

3.4.2.3 Qualitative Research

Qualitative research is an umbrella term for several research strategies (Bogdan & Biklen, 2007). It refers to collection, analysis and interpretation of comprehensive narrative and visual data in order to gain insights into a particular phenomenon of interest (Springer, 2010). As the purpose of this study is to understand some particular phenomena regarding teachers' knowledge about inclusive education, the qualitative approach seems to be appropriate as a part of this mixed-methods research.

3.5 Research methods

In the present study, quantitative data were collected firstly and then qualitative data were collected on the same day, and these two data sets merged in the interpretation phase.

3.5.1. Questionnaire survey:

The instrument for data collection used in this study was a questionnaire that was divided into two parts. Part one of this instrument was designed to obtain participants' professional and demographic data. Secondary school teachers in Bangladesh were asked to provide information about different demographic variables such as gender, age, experience, educational background, training skills, year of teaching, and teaching subjects. Part two of the questionnaire was taken from the Attitudes Toward Inclusive Education Scale (ATIES) developed by Wilczenski (1992) containing 16 items (see Appendix: Appendix Number 7). It was designed to elicit participants' attitudes toward the inclusion of students with various disabilities

into regular classrooms. This 16-item scale measured participants' attitudes toward four aspects of inclusive education: social, physical, academic and behavioural. The following table shows the item topics categorized under these four aspects.

Table 1: Item topics of the aspects of the questionnaire

Disability Aspects (item number)	Item Topics
Physical (3,7,11,14)	Lack of speech Vision impairment Hearing impairments Mobility problems
Academic (1,5,10,13)	Minor regular curriculum changes Major regular curriculum changes Functional academic training Self help skill training
Behavioural (2,8,12,15)	Physical aggression Verbal aggression Disruptive behaviour Conflicts with authority
Social (4,6,9,16)	Shyness Language disorders Speech disorders Absenteeism

Each aspect consists of four items, for example the physical aspect consists of lack of speech, vision impairments, hearing impairments and mobility problems. In order to elicit attitudes towards inclusive education, the phrase "should be in regular classes" was included in each statement of the questionnaire (e.g. "Students who cannot move without help from others should be in regular classes"). Participants rate their responses on a likert scale (1=strongly disagree, 6=strongly agree). The scale yields a

total score that may range from 16 to 96, with a lower score indicating a less favourable attitude and a higher scale indicates a most favourable attitude.

The AITES is a widely used instrument for measuring teachers' attitudes or views towards inclusive education. For example, Subban and Sharma (2006) used this instrument to measure some Australian teachers' perceptions of inclusive education. Teachers' affective and behavioural aspects of attitude were not investigated in this study. Similarly, Chhabra, Srivastava and Srivastava (2010) used the same AITES scale to examine the Botswana teachers' perceptions of inclusive education. AITES scores are reliable (Subban & Sharma, 2006), and the scale has been used by researchers in developing countries, such as India (Parasuram, 2006; Sharma & Desai, 2003). These studies indicate that the AITES scale can be used to explore teachers' views or attitudes towards inclusive education in the current context.

3.5.2 Qualitative interview methodology

In a mixed-methods study researchers can use multiple sources of data from different approaches (Bogdan & Biklen, 2007). Schnorr (1997) and Harding & Darling (2003) used multiple sources of data for their study. Interviews can be a great source of information and are a commonly used method in qualitative studies. Interviews may be structured, semi-structured or open-ended depending on the researcher's familiarity and knowledge about the study and the purpose of the interview, as well as the nature of the study (Drew, Hardman & Hosp, 2008). In this study the researcher used semi-structured interviews.

Semi-structured interviews are a data collection method that is usually conducted face to face between the interviewer and the participants allowing the researcher to control the process, and allowing freedom for respondents to express their thoughts (O'Leary, 2004).

In this study, 13 semi-structured interview questions were used in order to acquire information related to the research topic. The researcher then probed using additional questions. These 'probes' differed somewhat from participant to participant. The researcher did not aim to search the depth of participants' knowledge of inclusive education. In this study only knowledge about how teachers conceptualize inclusive education was considered. The aim was to clarify responses which emerged from the quantitative data, as well as to find out how participants made sense of inclusive education.

3.6 Research setting

The research was conducted in selected secondary schools in the Dhaka District within the central region of Bangladesh. This region was chosen by the researcher for three main reasons. Firstly it is a highly populated region in Bangladesh (more than 10 million inhabitants). Secondly, participants needed to be secondary school teachers who had training on inclusive education. It was necessary because only teachers who have training either in CPD or in inclusive education have any ideas about inclusive education. Thirdly, teachers from the central region receive more training than teachers from other regions. A list showing names of the secondary schools in Dhaka was collected from the Bangladesh Bureau of Educational

Information and Statistics (BANBEIS). From this list, six secondary schools were purposively selected from different parts of Dhaka city. Two schools were selected from the central city, and four schools were selected from the northern, southern, eastern and western parts of the city.

3.7 Participants

In this study the researcher used two common sampling strategies, namely random sampling and purposive sampling. A small number of participants (n=30) was selected for this study owing to the lack of trained teachers. The participants were selected on the basis of two criteria: having some training in inclusive education (CPD), and having at least three years of teaching experience. Those who did not have any training in inclusive education were not selected as participants for this study, cause of only trained teachers have an idea on inclusive education. These 30 participants were selected from six secondary schools in Dhaka city in Bangladesh; five teachers per school. Since Dhaka is a megacity containing more than 10 million people, these six schools were selected from five different parts of the city, two schools from the city centre, and one from each of the northern, southern, eastern and western parts of the city. The researcher went to the schools and selected participants with the help of the schools' head teachers. Out of the available teachers who met the criteria at each of the six schools, five participants were selected using random sampling. Although it was intended to balance the male- female ratio, this was not possible (male teachers were less available than females when the researcher visited the schools, and many of the available male teachers either had no training in inclusive education or had teaching experience of less than three years). Participant

levels of teaching experience ranged from three years to more than thirty years. Average teaching experience ranged from three to ten years and most of the teachers were trained to teach more than one subject. The following table (Table 2) presents the demographic distribution of the participants of this study.

Table 2: Demographic variables of the participants

Characteristics of the Participants	Number of Participants($N=30$)
Female	18
Male	12
Academic background	
<i>Bachelor's degree</i>	20
<i>Master's degree</i>	10
Years of teaching	
<i>3-10 years</i>	15
<i>10- 20</i>	06
<i>20- 30</i>	07
<i>More than 30 years</i>	02
Age	
<i>Below 30</i>	02
<i>30-40</i>	16
<i>40-50</i>	07
<i>More than 50 years</i>	05

3.8 Selection of interview participants

After responding to the questionnaire, six teachers were purposely selected for semi-structured interviews, one from each school. The criteria of the teachers being interviewed included having some teaching experience (minimum three years), an academic background with a professional degree, and willingness to participate. Fewer male teachers were willing to give interviews. The demographic variables of the six participants are presented in Table 3.

Table 3: Demographic representations of participants for semi-structured interviews

Pseudonym	Gender	Age	Teaching Subject	Years of Teaching Experience	Academic Background
Ami	Female	50	Bengali, Social Science	25	M.A, B.Ed
Raz	Male	55	English	27	B.A , B.Ed
Zahi	Female	46	Science	20	M.A, M.Ed
Meher	Female	37	Science	10	M.A, B.Ed
Naj	Female	31	Bengali	07	M.A, B.Ed.
Shah	Male	33	Math, Religious Studies	05	B.Sc. B.Ed

3.9. Data collection

There were three sections to collect data. Before data collection there was a pilot study following by quantitative and qualitative data collection.

3.9.1. Pilot study

Before collecting the main data the researcher carried out a pilot study to ensure the quality of the questionnaire. Ten school teachers (five female, five male) from one secondary school were selected for the pilot study. They were a different group from

the participants of the study. The researcher sent the questionnaires to them together with an information sheet, consent form and return envelope. English is the second language in Bangladesh and the questionnaire was in English. Seven of the ten participants returned completed questionnaires (four female, three male; 70% response rate). The response rate indicated that the participants could understand the English and the questionnaire content. The researcher also conducted a semi-structured interview with one participant to ensure that the questions of semi-structured interview schedule were comprehensive to the participants.

3.9.2 Quantitative data collection

After piloting, quantitative data was gathered, which was involved the completion of survey questionnaires on attitudes of secondary school teachers towards inclusive education. Appointment times were scheduled by the researcher by contacting the head teachers of schools from which participants were selected. Before going to the schools, the researcher received ethical permission from the Educational Research Human Ethics Committee (ERHEC) at the University of Canterbury in New Zealand. The researcher also received permission to collect data from the Directorate of Secondary and Higher Education (DSHE), Ministry of Education, Bangladesh. In this study the researcher went to all the selected schools to collect data. In the main study, questionnaires were not sent to the participants by mail in order to avoid various difficulties. Firstly, most of the schools were busy with their annual exams. Mailing out the questionnaire would take a long time to reach participants. Besides, a mailed questionnaire may easily be neglected or abandoned by the receivers; it also takes a long time to be completed and returned. Data collection was organised into

phases. Firstly, it happened through acknowledgement and co-operation with the head teacher by providing them with an information sheet and a consent form (see appendix Number 1 & 2). Secondly, the researcher collected participants' names from the teachers attendance register. A school office assistant or sometimes the head teacher gave her the information about the teachers' training and the participants for the survey were then selected. Thirdly, the researcher talked with the participants and gave them ideas on this research. After that she gave the participants their information sheets and consent forms (see appendix Numbers 3 & 4). She also gave the instructions which were required for participants to complete the questionnaire. Fourthly, participants gave their consent in consent forms. Fifthly, participants were asked to fill out the first part of their questionnaire with their demographic information and then mark the specific boxes in the questionnaire according to their opinion. For example, for item one, "Students whose academic achievement is two or more years below the other students in the grade should be included in regular classes", participants were requested to put a tick in the "agree" box if they agreed with this statement. The researcher was always present to give instructional support to the participants. The procedures used to collect the questionnaire data within the research settings are illustrated below (Figure 2).

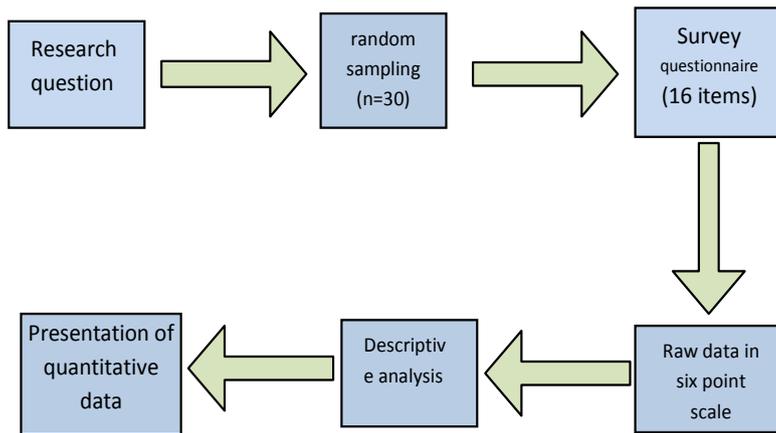


Figure 2 : quantitative procedure

3.9.3 Qualitative data collection

After collecting the questionnaires, the researcher selected six participants (one from each school) purposely for a one on one semi-structured interview. In most cases, female teachers were more willing to be interviewed than male teachers. The researcher selected six participants (four female and two male) according to their experience, training, willingness and other factors. Secondly, before starting the interview participants filled out their consent form after reading an information sheet (see appendix Numbers 5 & 6), as was done prior to the surveys. Thirdly, the researcher interviewed the participants with an interview schedule (attached in Appendix 8), which included fourteen questions relating to attitudes toward inclusive education and the teacher's conceptualisation of inclusive education. Interview sessions ranged from 15-40 minutes. Participants gave their opinion in Bengali because they could express their opinion better in their native language. Interviews were semi-structured. Each interview was one-on-one (a face-to-face interview) with the participating teachers. Though the question count was fourteen, the researcher

received extended information by asking more questions related to inclusive education. These interviews were recorded by the researcher. The following figure shows the qualitative procedure (Figure 3).

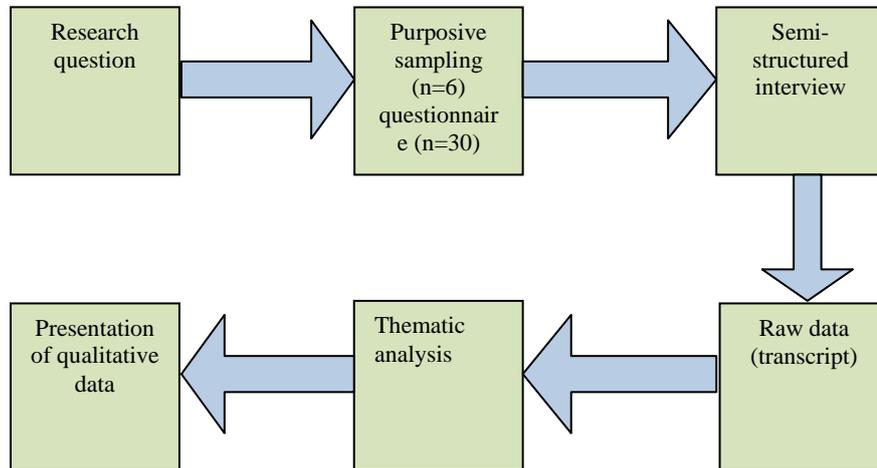


Figure 3: qualitative procedure

3.10 Methods of data analysis and interpretation

A research study produces a mass of raw data, such as the responses of participants to an achievement, ability or attitude test. Collected data must be accurately scored and systematically organized to facilitate data analysis (Collins, 2010). Mixed-analysis involves the use of both quantitative and qualitative analytical techniques within the same framework, based on the selected research paradigms. The data was analysed through the descriptive and interpretive approaches.

3.10.1 Descriptive data analysis

Questionnaire data was turned into numbers according to the six point scale, with a data range of 1-6. Arithmetic means were calculated. A mean score on any aspect

higher than 3.50 indicates that participants somewhat agree with that aspect (which included four individual items). Graph charts were used for representing the highest agreement and disagreement on each item and there was a percentage summary of each item.

3.10.2 Thematic analysis:

Qualitative data was analyzed using a thematic approach. After receiving all the information, interview records were examined by the participants. As this took place immediately after the interview, it was not possible to give a transcript of the interview to all participants. Before formal analysis, the researcher translated all interviews from the voice recorder because they were in Bengali. Then the researcher used some steps for formal data analysis. Firstly, the formal phase was introduced after extensive reading and re-reading of the transcript (Schnorr, 1997). Secondly, the process of categorising the data was undertaken. Thirdly, the data was coded on the basis of the categories and identifying and creating themes was the final step in the analysis of the data.

3.10.3 Merging both sets of data

The researcher provided a better understanding of the problem by mixing the two data sets. After getting the data from both quantitative and qualitative approaches, it was merged for a complete picture of the issues. This was similar to an “interaction” between the two phases of data (Teddlie & Tashakkore, 2010). It also means directly relating the two data sets (Creswell & Clark, 2007). In this study there was no use of specific software to combine the results because links were made between the

analyses by the researcher. The usage of descriptive and qualitative analysis of the data by thematic analysis is related to the research questions and purposes of the study. Here the two sets of data analysis are independent but the phenomenology is the link between the analyses.

3.11 Tracking of data

All data obtained from the field were kept in a secure file folder containing all research information. Survey questionnaires and semi-structured interview data (with English transcripts) were kept in hard copy, as well as saved on soft copy. Audio recordings of interviews were stored on a digital recorder and also in the researcher's computer. All data will be stored for at least five years in a secure place.

3.12 Reliability and validity/ rigour and trustworthiness

The scale used to measure attitudes from teachers' responses, the Attitudes Towards Inclusive Education Scale (ATIES) by Wilczenski, is reliable and valid and has been used in various parts of the world (Chhabra, Srivastava & Srivastava, 2010).

Wilczenski analysed the reliability of the ATIES scale. These factors facilitated the application of the questionnaire scale and reported a Cronbach's Alpha value of 0.92 (Kuyini & Desai, 2007). As the participants were all teachers, it was expected that they would understand the original version of the questionnaire, which was in English and the pilot study confirmed this expectation

Trustworthiness and credibility depend on rigorous methods, the credibility of the researcher and the philosophical belief in the value of the research. Qualitative interpreters relate credibility with more than one way of analysing experience

(Harrison & Morton, 2001). They believe that there is no single correct interpretation. However, several strategies were followed to ensure trustworthiness and credibility in this study. Multiple sources of data support the concept of 'triangulation' which also allows the researcher to cross-check some information, and assess the authenticity of individual accounts. This assessment contributes to validation of the research process. Besides this, the researcher allowed her participants to listen to their interviews, in order to delete or cut out what she/he was not interested in putting it in.

3.13 Ethics in research

Social research needs to pay attention to the main ethical issues of informed consent, intrusiveness, confidentiality and anonymity. As a consequence, a researcher needs to have high standards of personal and professional integrity. It is necessary to be concerned about the state of the research site and the welfare of individual participants. Ethical permission for the study was given from the Educational Research Human Ethics Committee (ERHEC) at the University of Canterbury in New Zealand. The researcher also received permission to collect data from the Directorate of Secondary and Higher Education (DSHE), Ministry of Education, Bangladesh. The researcher is obligated to protect participants' rights in two ways: by informing the participant of their role in the study and by maintaining confidentiality and anonymity during the research process.

3.13.1 Informed consent

Before conducting a survey or a semi-structured interview, it was necessary to obtain written permission for consent by all the participants and the participants acknowledged that they were fully consenting to the tasks they would complete.

3.13.2 Anonymity and confidentiality

Anonymity and confidentiality refer to assurance by the researcher that obtained data would not be disclosed and participants' names will be kept secret. Participation was completely voluntary. All participants had the right to withdraw at any time of the study. There was no potential risk or hazard that could have resulted from participation in this study.

All participants were addressed with pseudonyms in place of their real names and the schools where they worked were not identified. Collected data will be kept securely at the University of Canterbury and will be destroyed after five years. Only the researcher and her supervisors have access to the data. In this study the researcher maintained all formalities in relation to anonymity and confidentiality.

3.13.3 Other ethical concerns relevant to research

It is necessary to obtain permission regarding ethical concerns from the relevant authorities. The Educational Research Human Ethics Committee (ERHEC) and Human Ethics Committee of the University of Canterbury are the relevant authorities. In this study the researcher gained approval from the mentioned authorities. In addition, permission was sought from the Directorate of Secondary and Higher Education (DSHE), Ministry of Bangladesh. There was an information

sheet and consent form only for their acknowledgment. There was a separate information sheet and consent form for all participants during data collection.

3.14 Problems encountered during data collection

As the research was carried out, the researcher encountered a raft of problems concerning data collection. Firstly, the dates scheduled for data collection by the researcher were not convenient for some schools, because of their annual school exams, which made it difficult for the researcher to collect data and to interview the school teachers. Secondly, most of the school teachers had no training on inclusive education. Further difficulties occurred in the process of collecting the interview data. Most teachers had not been involved in any research before and all interviewees gave their opinion in Bengali which then needed to be translated into English.

3.15 Summary

In summary, this research was mainly conducted within the positivist and interpretive paradigms. Surveys and semi-structured interviews were used as mediums for data collection. Interviewing was carried out face-to-face. Data was analysed using descriptive and interpretative approaches. The next chapter will focus on the results of this study in light of data analysis.

Chapter Four: Results

4.1. Introduction

This chapter presents the results of the study of secondary school teachers' attitudes or views towards and knowledge about inclusive education in Bangladesh.

The study findings are presented in three sections: in Section One, participants' attitudes were examined through a descriptive data analysis. The second section used semi-structured interviews to explore the collected data. The interview questions were categorised by themes, including teachers' attitudes towards inclusive education, barriers, success of inclusive education, and government initiatives. The final category included "other" related issues regarding inclusive education. In Section Three an integration of the findings of the quantitative and qualitative aspects of the research is presented.

4.2 Findings

4.2.1 Section one : Findings from survey questionnaire

The findings section comprises two parts: the pilot study and findings of the survey questionnaire.

4.2.1.1 The pilot study

The pilot study was conducted in order to find out whether the questionnaire would be comprehensible to the participants, as it was not in their first language. The questionnaires were sent to ten participants, seven of whom responded without any

difficulty. The other three participants did not respond. The fact that the majority of the participants responded to the questionnaire indicates that they could understand the text in English, as well as the concepts included in the questionnaire.

4.2.1.2 Questionnaire findings

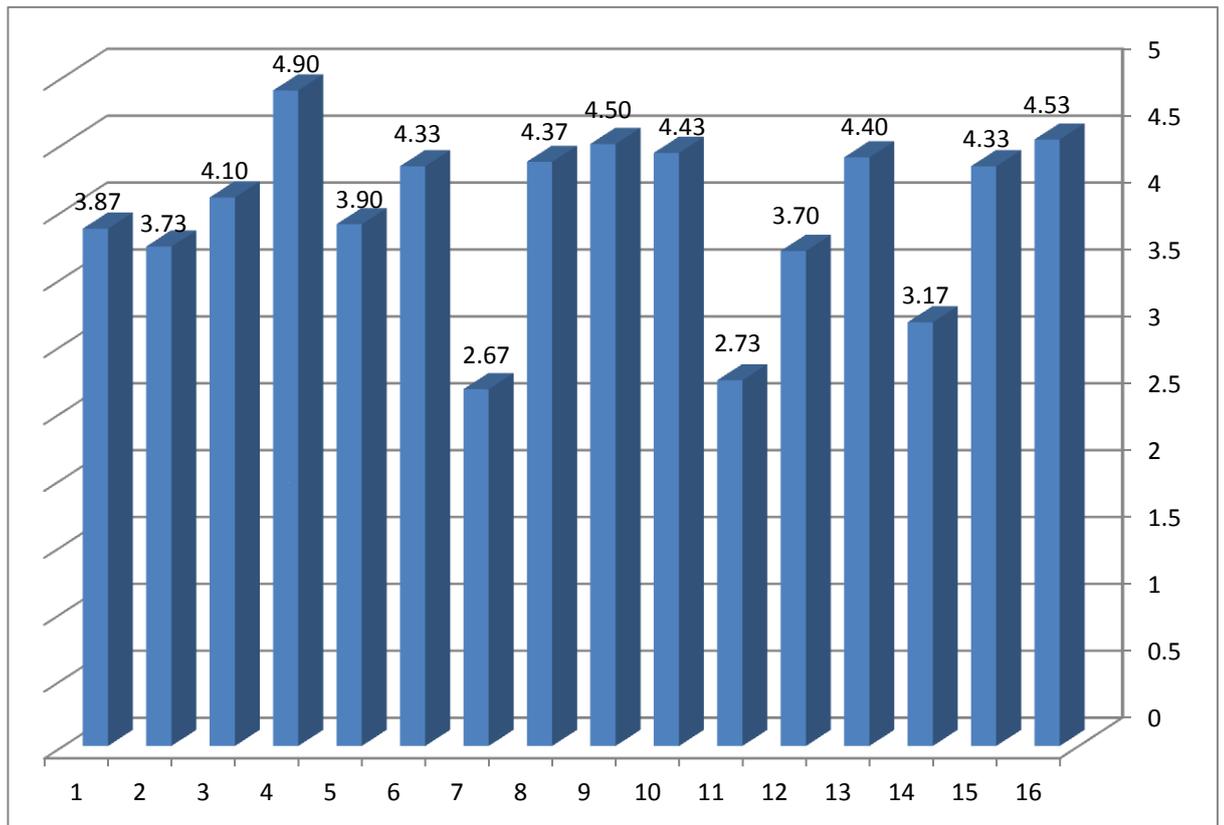
Questionnaire data was coded according to the six point scale, with a data range of 1-6. Questionnaire findings were presented according to item and according to aspect. An item based summary is presented in Table 4, and mean scores of 16 items are presented in Figure 4.

Table 4: Teachers' attitudes or views about inclusive education for children with different types of disabilities (%)

Items	Strongly Disagree(%)	Disagree (%)	Somewhat Disagree(%)	Somewhat Agree(%)	Agree(%)	Strongly Agree (%)
1. Students whose academic achievement is 2 or more years below the other students in the grade should be in regular classes	-	10(33.33)	4(13.33)	4(13.33)	4(13.33)	8(26.67)
2. Students who are physically aggressive toward their peers should be in regular classes.	1(3.33)	9(30)	2(6.67)	3(10)	12(40)	3(10)
3. Students who cannot move without help from others should be in regular classes.	2(6.67)	6(20)	2(6.67)	5(16.67)	12(40)	3(10)
4. Students who are shy and withdrawn should be in regular classes.	-	1(3.33)	3(10)	2(6.67)	15(50)	9(30)
5. Students whose academic achievement is 1 year below other students in the grade should be in regular classes.	-	7(23.33)	4(13.33)	7(23.33)	9(30)	3(10)
6. Students whose speech is difficult to understand should be in regular classes.	3(10)	1(3.33)	2(6.67)	6(20)	12(40)	6(20)
7. Students who cannot read standard print and need to use Braille should be in regular classes.	8(26.67)	10(33.33)	4(13.33)	3(10)	3(10)	2(6.67)
8. Students who are verbally aggressive toward their peers should be in regular classes.	1(3.33)	3(10)	4(13.3)	4(13.33)	12(40)	6(20)
9. Students who have difficulty expressing their thoughts verbally should be in regular classes.	-	4(13.33)	-	7(23.33)	15(50)	4(13.33)
10. Students who need training in self-help skills and activities of daily living should be in regular classes.	-	2(6.67)	5(16.67)	5(16.67)	14(46.67)	4(13.33)
11. Students who use sign language or communication boards should be in regular classes.	6(20)	12(40)	5(16.67)	1(3.33)	3(10)	3(10)
12. Students who cannot control their behaviour and disrupt activities should be in regular classes.	3(10)	4(13.33)	6(20)	5(16.67)	10(33.33)	2(6.67)
13. Students who need an individualized functional academic program in everyday reading and math skills should be in regular classes.	1(3.33)	2(6.67)	3(10)	6(20)	14(46.67)	4(13.33)
14. Students who cannot hear conversational speech should be in regular classes.	4(13.33)	7(23.33)	8(26.67)	6(20)	1(3.33)	4(13.33)
15. Students who do not follow school rules for conduct should be in regular classes.	3(10)	-	4(13.33)	4(13.33)	15(50)	4(13.33)
16. Students who are frequently absent from school should be in regular classes.	2(6.67)	2(6.67)	2(6.67)	3(10)	14(46.67)	7(23.33)

Table 4 shows that for 13 of the 16 items there is a higher response rate within the three agreement levels (strongly agree/ agree/somewhat agree) than the disagreement levels. Participants largely disagreed with items which were related to including children with vision impairments or hearing difficulties or who need to use sign language in the classroom. The overall mean of all respondents on all the statements of the ATIES was 3.97. This mean indicates an attitude that falls between response numbers 3 and 4, that is between “somewhat agree” or “somewhat disagree”, but leans heavily towards 4, which pertains to the response “somewhat agree” on the questionnaire scale. A response mean which lent towards 3 would be closer to “somewhat disagree”. Higher scores indicate more favourable views towards inclusive education.

Figure: 4 Item-wise average on each item

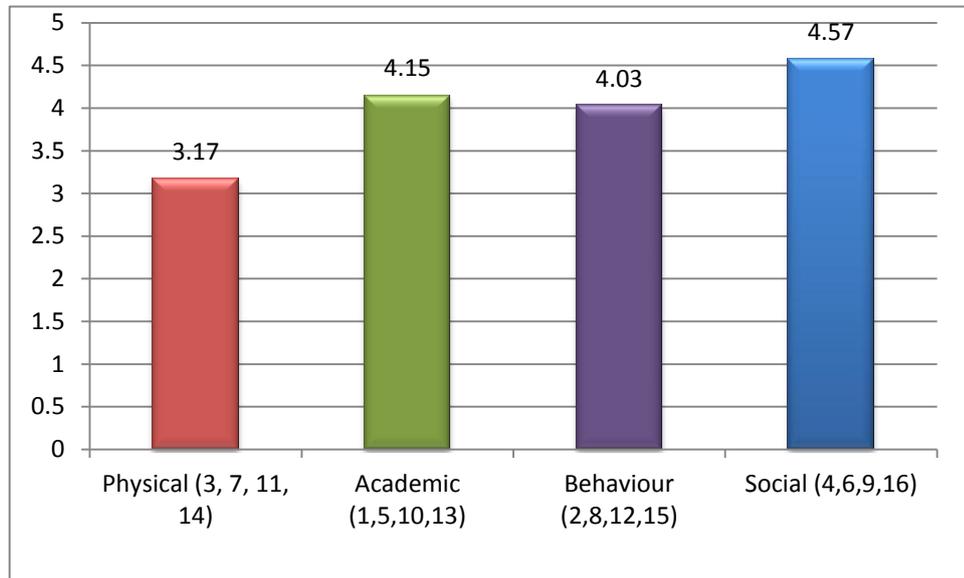


The bar graph shows the mean response of each item. All items other than 7, 11 and 14 were, on average, positively opined by participants. However, no agreement or disagreement level is fully attested to (100%) by participants. This means that teachers who have positive attitudes do not have negative attitudes. They might have slightly negative attitudes but the emphasis was positive rather than negative. The highest positive attitude was shown by the participants towards children who feel shy. They believed that these children should be in regular classes. On the other hand participants had the strongest negative views on children who would need to use Braille in their class.

Overall, teachers' responses suggest that participants are more prepared to accommodate students who need academic modification, who have behavioural difficulties, or students with social concerns rather than children with hearing or visual impairment. They think that students who are one year below than the average student should be in regular classes and they hold similar views towards the inclusion of students whose academic standard is two or more years behind. On the contrary, participants showed more negative attitudes towards students who need to use sign language or who cannot hear conversational speech in class. Furthermore, teachers hold positive views on students who play truant, or disrupt activities, and students who have difficulty in expressing their thoughts. In addition, most participants opined that students who are physically aggressive should be in regular classes. Overall, item-based findings suggest that participants are more prepared to accommodate students whose needs are the result of academic or social deficits rather than children with hearing or visual disabilities.

These response tendencies can be clearly seen in Figure 5.

Figure: 5 Aspect-wise mean positive rating towards inclusive education for different types of disability



This bar graph shows the participants' responses to the items grouped into four types of disabilities. Social disability aspects had the highest mean, which was 4.57, and the lowest mean was the physical disability aspects mean, which was 3.17. The academic disability and behavioural disability aspects means were similar but the academic aspects mean was slightly higher than the behavioural aspects mean (academic = 4.15, behavioural = 4.03). The fact that the physical disability aspects mean is the lowest suggests that teachers are not as willing to take children with physical disabilities in their regular classes. On the contrary, the highest average positive rating for social disability related items indicates that secondary school teachers have a comparative eagerness to teach children who are shy or who have a simple speech or language disorder. The lower mean rating for behavioural aspects

(4.03) in comparison to academic aspects (4.15) implies that students with behavioural disabilities such as physical or verbal aggression are less welcomed in the mainstream school system compared to children who have lower academic grades or need functional academic training. In short, this aspect-based bar graph depicts that secondary school teachers have more positive attitudes towards socially deprived children, than to other aspects of disability in relation to inclusion.

From the item based, aspect based findings it seems that most participants agreed with most of the items and that they had positive attitudes and views towards inclusion. It does not mean, however, that they do not have any negative views towards inclusion. There is no single participant who responded only positively or only negatively. The results from the three phases described are quantitative, using a descriptive analysis.

4.2.2 Section Two: Findings from the semi-structured interviews

Qualitative data was analyzed using a thematic approach. After getting all the information, interview records were examined by the participants. As it happened immediately, it was not possible to give a transcript of the interview to all participants. Before formal analysis, the researcher translated all interviews from Bengali to English, and read each transcript multiple times in order to check the ideas match between English and Bengali. Formal analysis involved firstly categorising the data, next coding it on the basis of the categories, and finally identifying themes. The semi-structured interview was designed to answer the following research questions.

1) What attitudes do teachers have about inclusive education in Bangladesh?

2) How do secondary school teachers conceptualise inclusive education?

The researcher presents her qualitative results by identifying some themes related to secondary school teachers' attitudes to and knowledge of inclusive education in Bangladesh. Table 5 provides a summary which shows the themes and subthemes which emerged from the data. Table 5 provides a summary which shows the themes and subthemes which emerged from the data.

Table: 5 Themes and subthemes from the semi-structured interviews

Themes	Subthemes
Secondary schools teachers' attitudes towards inclusive education	Attitudes towards children with physical disabilities in the main stream classroom. Attitudes towards children with social concerns in the mainstream classrooms Attitudes toward children with behavioural difficulties Attitudes toward children requiring academic modification
Teachers' knowledge of inclusive education (different conceptualisation of inclusive education)	Inclusive education as a system of education for all Inclusive education as integration of special educational needs children Inclusive education as a way of reducing social discrimination
Practical barriers towards inclusive education	Insufficient knowledge of inclusive education Inclusion confusion Lack of training Lack of teaching materials Large class size
Success of inclusive education	Benefits to family Benefits to society Benefits to the nation
Government initiatives and others	Existing education projects (e.g. TQI-SEP) Changes to education policy Education budget

The following is an explanation of the emergent themes and sub-themes outlined above:

Theme 1: Secondary school teachers have mostly positive attitudes towards inclusive education

According to the interview data, secondary school teachers have mostly positive attitudes towards inclusive education, although teachers show different attitudes towards different aspects of inclusion. Their attitudes can be expressed using the following sub themes:

Sub-theme 1: Secondary school teachers show negative attitudes towards having children with physical disabilities (such as vision impairment) in the mainstream classroom

Most of the participants welcomed the concept of inclusive education in Bangladesh, but at the same time they showed less positive attitudes towards physically disabled children than towards children with behavioural or academic difficulties. Secondary school teachers are less willing to accommodate physically disabled children, such as children with hearing or vision impairments, mobility problems or lack of speech in the mainstream classroom. One of the participants, Raz, stated,

“I appreciate that inclusive education is a good initiative but I don’t know the Braille method or sign language. How could I teach children with vision impairments or children who cannot hear conversational speech?”

Similarly, Shah stated

If my students are unable to communicate with me, how could I teach them...The Government can make them a part of mainstream schools by establishing special units in each school or can increase the number of special schools. Trained teachers can teach them.

Yet another participant, Naz, strongly agreed with Shah and Raz

I have no experience with the Braille method or sign language. Is it possible to conduct a class with them?...Students who need help from others will need an extra person in the class...

However, another participant, Zahi, disagreed:

Others students from the class can help the physically disabled children. It is a matter of mentality... we should help them... I have six brothers and my eldest brother was physically disabled...

Another participant, Meher, said she would be willing to integrate physically disabled children, such as those with hearing impairments or children with mobility problems in her mainstream classroom. This participant remarked, "If I get training, before my class, I can be prepared to conduct a class with physically disabled children." One of the female participants, Ami, described her views from a humanistic point of view, "...we don't know what will happen tomorrow. They are like my son or daughter... It is a matter of rights."

Although participants in general showed less positive attitudes towards inclusive education for physically disabled children, they showed more positive attitudes towards those children who are socially disabled.

Sub-theme 2: Teachers show more positive attitudes towards having children with social concerns (such as extreme shyness) in their mainstream classrooms

Most of the mainstream secondary school teachers hold comparatively positive attitudes towards children with social concerns such as those who are shy, play truant or have language disorders. One of the female participants, Zahi, expressed her opinion as follows:

From the beginning I observed that he (one of the students) feels too shy to express himself in the class, he knows really very well but he was unable to express himself. He could not interact properly. I thought, what should I do now? I took some steps to engage him in classroom activities. It was really helpful to him...

Another participant, Ami, agreed that children with shyness and languages difficulties may take part in regular classes. She added:

Some students might have difficulties in language or maybe they are not fit to express their thoughts properly but we can give them the chance of education with other general education students. It may be a “milestone” for them...

A young female teacher, Meher, gave her opinion on absenteeism,

Many of our students do not come from a rich family. Sometimes some students miss the class. When I joined I thought it should not be but after some time I realized that some students are so poor. They are engaged sometimes in work for money or sometimes parents are unable to pay their fees...

However, another participant, Raz, claimed that students should be present in the class. Otherwise, if they are not, the impact of truancy may have adverse consequences in the future. He said, “In relation to absenteeism, it is not wise to give

them (the students) a chance for absence in his/her class. It might cause them to create a bad habit, which will have a negative impact on the near future”. Another male participant, Shah, thinks that “if the reason is genuine behind their absenteeism then we can accept this. Sometimes students mentioned many unauthenticated reasons for their absence...”

Sub-theme 3: Teachers are more positive about teaching children with behavioural difficulties (such as verbal or physical aggressiveness) than children with physical disabilities in their mainstream classes

Most of the secondary school teachers were prepared to have children with behavioural difficulties in their class, such as children who are verbally or physically aggressive or who do not follow the school rules. Zahi asserted “they are now children. It is natural that they might be aggressive physically or verbally.”

Another participant, Ami stated “my students are like my sons, to use some slang language is not a big crime which needs big punishment”. Naz added her voice to Ami in this way, “If we tell them what is good or what is bad maybe they will accept it.”

Meher believed:

Students who come from poor areas use slang language more than students from rich families. Sometimes they cannot control their behavior. It is not their fault. Their environment makes them this way...some students might not be able to follow school rules because of their financial conditions...To wear a school uniform is part of the school rules but I have a student who is unable to do that, because he does not have money.

Shah stated:

They are our students, we should understand them both externally and internally...we need to understand why children behave as they do, so that we can try to prevent misbehavior before it happens...

Furthermore, Raz thinks that the sex of the students plays a role in this regard. He mentioned that “Boys are always more active than girls. They often make some trouble with others in the absence of a teacher. It is not easy for them to understand what is wrong (not social norm)”.

Subtheme 4: Secondary teachers agree to include children with academic difficulties in their regular class

Most of the school teachers expressed positive attitudes towards inclusive education for children with academic difficulties, such as students whose academic achievement is one or two years below the standard in a regular class or who need academic modification through functional academic training. One of the female teachers, Zahi, suggested “I think we can include them in our class though they have some academic problems such as failure or a one year drop in the class. As all students are not similarly meritorious...a one or two year gap is not a big problem”

Meher asserted:

As a science teacher I noticed that sometimes students need special care only with specific subjects. Subject teachers and regular students can help the specific students for extra time... but most of the teachers (especially teachers of English, Maths and Science) are engaged in private tutoring.

A participant who hails from one of the best schools in Dhaka, claimed:

In our school we have different programs to improve students' abilities which would be helpful to improve their lower academic grade. In an inclusive class regular students and students with disabilities can interact with each other and there is a scope to help their counterparts.”

Shah commented that

Some schools have the facilities but most of the schools do not...though school committees are trying to manage some extra classes or coaching to improve academic achievement, especially for Maths, English and Science.

On the other hand Raz thinks that

We have no criteria to measure his academic achievement except examination. Sometimes good students can fail for many reasons. Exams should not be the one criterion to measure academic achievement... we should investigate different criteria to truly know their level.

Participants' attitudes toward inclusive education appeared to be very much affected by their knowledge of inclusive education.

Theme 2: Knowledge of inclusive education

In relation to the understanding of inclusive education, there were different sections where participants could give different responses.

Subtheme 1: Inclusive education as a system of education for all

Some participants conceptualised inclusive education as "Education for all". For example, Raz explained that “Inclusive education is a type of educational system where all children can learn and it includes all children in the mainstream classroom.” Another participant, Ami, supported this view:

Inclusive education is the concept of giving opportunity to all sorts of children; including physically disabled, socially deprived or intellectually disabled children; where all children can get opportunities of education.

Another teacher, Naz, gave the following opinion:

Inclusive education has some core concepts and these are: all children have the right to go school; all children can learn; all children have the right to get education... Here all different types of children are acknowledged including street children, children of sex workers, children of HIV mothers ...”.

Subtheme 2: Inclusive education as integration of special needs children

On the contrary, some participants thought that inclusive education is primarily related to the integration of children with special educational needs in their regular class. One participant identified inclusion “as a system to integrate mainstream children with special educational needs children in the mainstream classroom...”

Likewise, Zahi added that inclusive education means the accommodation of physically disabled children and socially deprived children in our classroom with our regular students.

Subtheme 3: Inclusive education as a means to decrease social discrimination

Among six of the participants one of the female teachers, Meher, explained inclusive education from another point of view:

Inclusive education means more than education for all. It is a system where poor and rich children are treated equally. We could consider it as a pathway to reduce social discrimination.

Theme 3: Barriers towards inclusion (relevant to attitudes and knowledge)

In this study most of the participants have positive attitudes towards inclusive education. Some obstacles were identified from the qualitative data which have an effect on their attitudes and knowledge such as insufficient knowledge of inclusive education, inclusion confusion, lack of training, lack of teaching materials and large class size. They mentioned that their lack of knowledge of inclusive education is the vital barrier and is related to their existing attitudes.

Subtheme 1: Insufficient knowledge of inclusive education

Most teachers agreed that they have a lack of knowledge (basic and practical) about inclusive education, which is also reflected in their conceptualisation of inclusive education and in their existing attitudes. Naz lamented:

I only know the concept of inclusive education, but I know it is not enough. Still I do not know if I could conduct an inclusive class. My amount of knowledge is not sufficient to do that. How could I manage a class with different types of students having different difficulties...? I want the strategies for the implementation of inclusive education, I want to know the curriculum of inclusive education...but I do not know... There is not enough publicity or information from the government...

Raz also agreed with Naz. He questioned, “If inclusive education means all children in the same classroom, then what should I do with those who are mentally disabled? Are they fit for my class?” Shah agreed and asked, “What about the mentally retarded children?...Should we include them?...” and indicated that “it is not possible to include all children...we can segregate them according to their severity...”. On the

contrary, one participant, science teacher Zahi, said that “basic knowledge is not sufficient to be a classroom teacher. We need practical knowledge.” Another science teacher, Meher, commented:

As a science teacher, I think that knowledge is not complete before it is practically implemented. To implement inclusive education I need practical knowledge...when the government starts inclusive education programmes there will be more skilled people.

Shah agreed with Meher and advised that “in training, there should be some practical sessions on inclusive education where teachers can get ideas to conduct a class”. In these ways participants expressed their existing knowledge on inclusive education, and they also mentioned some existing confusion on inclusive education.

Subtheme 2: Inclusion confusion

Participants mentioned that they have some confusion about inclusive education, which was reflected in their conceptualisation of inclusive education.

Naz expressed her confusion about inclusion in this way:

I have some knowledge about inclusive education but I am confused about the labeling of it. We have an admission test to enter this school but what will be the criteria to enter a mainstream class?

Ami and Zahi also questioned the researcher:

What will the curriculum be like if inclusive education is added? Now we have a curriculum but after the implementation of inclusive education we need a different curriculum to include children with disabilities.

Participants mentioned that more training may be the best way to gain knowledge and to reduce confusion. Therefore, these participants think that insufficient training for inclusive education is another barrier towards its implementation.

Subtheme 3: Lack of training

Most of the school teachers have training on their teaching subject under Continuous Professional Development (CPD), but they do not have training for inclusive education. Naz explained the situation in this way:

I do not have any inclusive training but I have training entitled Continuous Professional Development (CPD) for my subject, Bengali. I participated in only four sessions (each session one and half hours) which were related to inclusive education. This is not sufficient training to know about a new concept or idea. We need exclusive training about inclusive education.

Zahe expressed her position, “My knowledge about inclusive education is not appropriate to be an inclusive teacher. I want to know more.....” Another young teacher, Shah, added “I want to know about the curriculum of inclusive education”. Ami also questioned the curriculum, “What should the curriculum be like if it includes inclusive education?”

Subtheme 4: Lack of teaching materials

Teachers mentioned that insufficient teaching materials are one of the barriers towards inclusion. Most of the schools do not have teaching materials relevant to inclusive education. Raz thinks that:

The materials are not sufficient and if I want to take a class with disabled children then I need different materials, such as those for vision impairments. They need a Braille machine, but we do not have one...I do not know how to use these teaching materials. We have neither appropriate resources, nor specialised skills to help include these children.

Naz also asserted that "even if we have materials, we also need to know how to use them and how to preserve them for further use."

On the contrary, Ami suggested that "if we wish we can make some of our own materials for our class purposes. We only need a positive attitude..." Zahi supports Ami: "It is not impossible for a teacher to make teaching materials".

Subtheme 5: Large class sizes

In Bangladesh most of the secondary schools have large class sizes, more than 50 students in one classroom. Participants mentioned that it would be difficult to conduct inclusive classes with class sizes that are so large. Raz claimed, "Normally I have 55-60 children in my class. If you add even more, how could I tend to all students within a short class period (40-45 minutes)?" Shah also agreed that it would be impossible to handle such a large number of children. However, Ami indicated, "In our country most of the schools have different sections in the same class." Zahi added, "We have morning and day shifts in our school. It reduces the class size".

Theme 4: Success of inclusive education

In spite of barriers, participants also mentioned some possible benefits of inclusion.

Subtheme 1: Benefits to the family

Inclusive education is a new concept which is now becoming more widespread in Bangladesh. Meher said, “It is not only a concept; it can have benefits ranging from in the family to the entire nation...” Ami and Zahi agreed, “It would help to change my mind about deprived children”. Zahi also noted, “Inclusive education also helps to boost children’s self-esteem, morale and interdependence with peers”. However, Naz pointed out, “It has advantages but there is a poor area near our school, and the children from this area do not have access to this school. Is it really the proper way to change our mind about deprived students?” Shah recommended the implementation of inclusive education as early as possible. He asserted:

We should start it. Inclusive education helps to change our prejudices and stereotypes. Students without disabilities can learn to value and respect children with disabilities. We need to consider what a child needs to learn, how he or she learns best, as teachers can build positive relationships with each child.

Subtheme-2: Benefits to society

A few participants thought that inclusive education could result in societal benefits.

One of the female participants, Meher, expressed the following opinion:

If we established this inclusive system it may help to reduce the discrimination of lower socio-economic classes. Students from poor and rich families can come together within the same education system, learn to tolerate each other, and perhaps even become friends.

Ami also thought that inclusive education presents an opportunity for all children to get an education, which is essential because the right to an education is a basic human right. Zahi had a similar opinion:

By passing education from one child to the next, a chain reaction in education can occur which would be positively reflected by social changes.

Subtheme 3: Benefits to the nation

Meher mentioned that through inclusion the nation as a whole can become better educated, which would result in the fulfilment of the Millennium Development Goal (MDG). Shah lamented that “Most of the developed countries have already established this concept in their education systems but we are too late...”

Participants also mentioned some government initiatives which could contribute to the evolution of inclusive education in Bangladesh.

Theme 5: Government initiatives and others

Teachers also mentioned awareness of various different government initiatives.

Subtheme1: Existing educational projects

With regard to government projects, Shah explained, “I joined the Teaching Quality Improvement in Secondary Education Project (TQI-SEP), which is the first Government project that offers training for the subject that I teach...”

Naz mentioned that “It is a good initiative from the government”. Meher added that some teacher educators are studying in foreign universities and they can provide quality teaching strategies for inclusive education to secondary teachers. In contrast, Raz questioned the effectiveness of Government projects:

As a developing country, it is not possible to successfully implement inclusive education only through Government projects. We have some barriers also... Governments can give us support and facilities but I think that my real support is myself. I have to change...not only externally but also in my mind...

Zahe, however, admitted, “I can change my mind but I need support to do that...In rural areas many non-Government organizations (NGO's) are doing a good job with education for deprived children...”

Subtheme 2: Changes to education policy

Recent changes to education policy were perceived as helping with the effective implementation of inclusive education. Shah stated that “The Government of Bangladesh has changed education policy and inclusive education is now in the 2009 Education Policy”. Raz, however, criticised this policy:

In our current policy, there is no term which directly means “inclusive”...in Bangali the term in the policy is “somonito” which means “integration” in English.

Most of the participants supported the idea that the government has taken some initiatives, though these initiatives were not perceived to be sufficient for effectively supporting inclusive teaching. Naz elaborated:

Even though I am a classroom teacher, teaching is not only my responsibility. It is a combined process with teachers, head teachers, school authorities, guardians ... the educational policy is not sufficient...we need co-operation from others...

Subtheme 3: Others (education budget)

Some participants noticed that the Government of Bangladesh has always given a high priority to the education sector. Government school teacher Zahi mentioned, “The government can distribute the major portion of the educational budget to develop inclusive environments for teachers and students.”

4.2.3 Integration of the quantitative and qualitative results

In this study the two sets of data have come from different approaches and each seeks to provide a unique understanding of the phenomenon under investigation. These understandings are combined in the following figure as they pertain to the research questions (Figure 6).

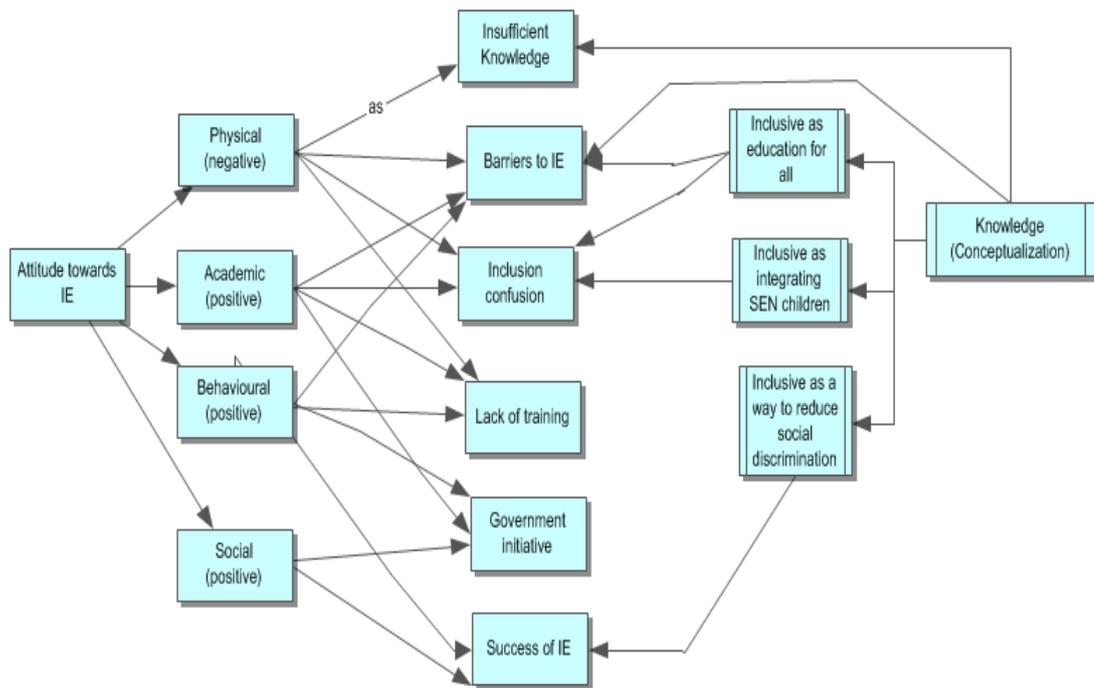


Figure 6: Integration of the quantitative and qualitative results.

The figure above shows the combined results of the qualitative and quantitative findings. The arrows indicate a link between the boxes such as the attitude towards physical disabilities is negative as there was lack of training, due to some attitudinal barriers or inclusion confusion. From the quantitative findings, teachers' attitudes regarding their views are presented within four aspects; physical (comparatively fewer positive attitudes), academic and behavioural (comparatively neutral attitudes) and social (comparatively fewer negative attitudes). That is, more positive views were reported by participants for the social aspect of the questionnaire and fewer positive attitudes were exhibited for the physical aspect of the questionnaire.

Participants suggested some barriers which were related to their attitudes and knowledge about inclusive education. For example, attitudes towards children with physical disabilities are less positive than attitudes towards children who are disadvantaged in other ways, and the qualitative results suggest that this tendency is due to insufficient knowledge of inclusive education, lack of training, and other barriers that could affect their attitudes and views. It was also the researcher's intention to find out how participants make sense of inclusive education and indeed, the diagram above suggests that participants make sense of inclusive education in different ways. Some thought that inclusive education means education for all, some defined it as the integration of children with special needs into teaching programmes and one participant mentioned inclusive education as a means of reducing social discrimination. Most participants think that the knowledge they have of inclusive education is insufficient and is also a barrier which prohibits positive attitudes towards inclusion. Nevertheless, some of the prospective successes of inclusion were mentioned, which originated from less negative views of the participants. Overall, participants showed supportive attitudes from their views (but not entirely positive) towards inclusive education despite having insufficient knowledge of it.

4.3 Summary

In this study the results chapter described the two types of findings: quantitative and qualitative. There was also a combined section including both types of integrated data. From both sets of data, it was found that participants have positive attitudes regarding views towards socially, academically and behaviourally disabled children, though they have less negative attitudes towards children with physical disabilities.

They thought that their knowledge (conceptualization of IE) of inclusive education was insufficient and the concept was defined differently by different participants. Participants need more training and government support to help them to understand, and this is also a reason for their negativity. Generally, participants agreed to work in inclusive environments, in spite of having insufficient knowledge about inclusion and attitudinal barriers towards it.

Chapter Five: Discussion

5.1 Introduction

The aim of this study was to examine Bangladeshi secondary teachers' attitudes towards inclusive education, and how they conceptualize inclusive education. The focus of this chapter is to discuss the findings of this study in relation to the literature, following a brief summary of the results of the research. A summary of the limitations encountered in this study is also presented in the discussion. There is a further section devoted to recommendations for future research in the field of inclusive education. Finally, the potential practical implications of this research are presented.

5.2 Summary of the main findings from questionnaires and semi-structured interviews

As the researcher used a mixed-methodology approach in this study, two types of data were obtained from two forms of data collection. The data were gathered from questionnaires and semi-structured interviews, and were related to teachers' attitudes or views and their knowledge of inclusive education.

The findings from the questionnaire data indicate that the thirty teachers showed predominantly positive attitudes towards inclusive education, and that the positivity of attitudes varies based on the type of disability. It is notable that their positive attitudes do not mean that they do not have any negative views towards inclusive education. On the whole, however, the teachers showed more positive attitudes

towards the inclusion of children with social concerns or academic or behavioural difficulties than children with physical disabilities such as vision impairments or hearing loss or mobility problems. The teachers who participated in the semi-structured interviews expressed diverse interpretations of the concept of inclusive education. For instance, four out of six participants (more than 50%) perceived inclusive education as an opportunity for education for all. One of the remaining two interviewees viewed inclusive education as the integration of special needs children in education, while the other considered it as a way to remove social discrimination. All participants conceded that they did not have sufficient practical knowledge of inclusive education. They gave a variety of reasons for their negative attitudes, particularly towards inclusive education for children with physical disabilities. These reasons included insufficient knowledge, lack of training to increase this knowledge, large class sizes and a lack of teaching materials. They also stated that there was some confusion about inclusion, confusion which was perceived as presenting a challenge for the successful implementation of inclusive education. Interestingly, teachers acknowledged some government initiatives and policies as reasons for positive views towards inclusive education. Teachers also encouraged inclusion because they viewed it as a manifestation of the basic human right of education, and a way of reducing social discrimination. In spite of insufficient knowledge and some reservations about inclusion, teachers generally showed supportive attitudes towards inclusive education.

5.3 Discussion of the findings

The quantitative and qualitative findings of this study reveal that secondary school teachers have mostly favourable or supportive attitudes towards inclusive education for children with special educational needs. At the same time, the teachers acknowledged that their conceptualisations of inclusive education are varied and insufficient.

5.3.1 Teachers' attitudes towards inclusive education

In this study, all special educational needs children, except for those who were physically disabled, were predominantly positively viewed by secondary school teachers for inclusive education. The involvement of children with social concerns and behavioural and academic difficulties in inclusive education in Bangladesh was supported. These findings are supported by various researchers such as Loreman, Forlin and Sharma (2007). In their study, they found teachers are most positive towards inclusive education in Hong Kong, Canada and Australia. Similarly, Ali, Mustapha and Jelas (2006) found that teachers had positive attitudes towards inclusive education in Malaysia, as teachers in Malaysia believe that inclusive education enhances social interaction and minimizes negative stereotypes. There are also some studies that yielded contrary results: Chhabra, Srivastava and Srivastava (2010) in Botswana, Agbenyega (2007) in Ghana and Lifshitz, Glaubman and Issawi (2004) in Israel and Palestine. All of them found that teachers held negative views towards inclusive education owing to teachers' limited training in inclusive education and lack of generic support from the government.

5.3.1.1 Teachers' attitudes towards children with social concerns

In this study, the term student with social concerns refers to children who have difficulties in speech or language, children who feel overtly shy, or who have a tendency to be truants (Wilczenski, 1992). Most of the Bangladeshi secondary school teachers had positive feelings about the inclusion of such children in the mainstream classes. The teachers who took part in the interview generally consider children with social concerns as having difficulty in interacting with others, and they believe that if these children are engaged in classroom activities, their social deficiencies can be minimized. Because the teachers consider the problem of social concern as resolvable by effective interaction, they have positive attitudes towards shy children in the regular classroom. This finding is similar to other researchers' findings, for example, in one study, Loreman, Forlin and Sharma (2007) argued that children with social concerns should be included in the mainstream class as this is a problem that often does not require extra time or energy from the teacher, and is unlikely to require immediate intervention. Similarly, Hodkinson and Devarakonda (2009) found that students' social deficiencies can be resolved by engaging them in peer work. That is why teachers often welcome children with social concerns in the mainstream classroom, even if they have an overall negative attitude towards inclusive education (Chhabra, Srivastava and Srivastava, 2010). This study found that the Bangladeshi teachers believed that social disabilities could be minimized through existing teacher abilities and available facilities. This is one reason teachers had positive attitudes towards the inclusion of children with social problems. Furthermore, the majority of teachers did not consider children with social concerns as problematic, therefore it is

understood that this type of child is not a significant barrier to implementing inclusive education in Bangladesh.

5.3.1.2 Teachers' attitudes towards children requiring academic modification

Data shows that most of the Bangladeshi teachers believed that children whose academic achievement is one or two years behind, or children who need individualized functional academic programs, should be in regular classes. The reason behind this attitude, as some of the interviewee participants said, is that teachers often do not consider academic difficulty as a problem in their classroom, because in the Bangladeshi context teachers generally accept that some children might fail or be unsuccessful in examinations as not all children are equally meritorious. It is noteworthy that Bangladeshi teachers' mindsets of not considering academic concerns as a problem is a reason behind their positive attitude towards children requiring academic modification. It was also found that the Bangladeshi teachers encourage peer learning, arguing that an academically weak student can learn with support from their peer students; therefore, the teachers appreciate including weak students into mainstream classrooms.

This attitude is coherent with the findings from a previous study which found that academically disabled children can gain more through different activities with regular students (Canadian Council on Learning, 2009). However, Singal (2006a) found teachers had a negative attitude in this regard because children with academic difficulties are often unable to cope with the level of academic demand in mainstream schools. On the other hand, one Bangladeshi teacher who was interviewed argued that the examination procedure is often inadequate to make a

decision about which children are weak or which are strong in education, because any good student can score badly due to physical illness or family problems. Similarly, Jantzen (2009) argued that different children need different learning support, and it is often not possible to assess all children equally through one examination procedure. Therefore, this study argues that the Bangladeshi teachers' views and positive attitudes towards children requiring academic modification should be considered as a positive sign of implementing inclusive education in Bangladesh.

5.3.1.3 Teachers' attitudes towards children with behavioural difficulties

Using Wilczenski's (1992) scale as a model, behavioural difficulties in this study is an umbrella term referring to children who are verbally or physically aggressive, cannot control their behaviour or who do not follow the school rules. Most of the Bangladeshi teachers' views in the present study were supportive of the inclusion of children with behavioural difficulties. The reason behind this, as some of the participants described during the interview, is that teachers often consider that it is natural for children to have behavioural problems owing to their emotional changes, and teachers and guardians should take some responsibility to teach these children how to behave normally with others. Berk (2006) noted that different emotional changes normally happen during childhood, and behaving differently is part of development. However, this result of the present study contrasts with the findings of other studies. For example, Alghazo and Naggar (2004) found that teachers had neutral attitudes towards pupils with behavioural difficulties in general education; Singal (2006) noted that most teachers were reluctant to work with children with behavioural difficulties. One common reason for such an attitude as stated in these

studies is that teachers consider children's behavioural difficulties as a problem and they are unlikely to take responsibility for correcting children's behaviour. However, the Bangladeshi teachers accept children's behavioural difficulties as a part of their development and they are likely to take responsibility to help them correct their behaviour. This suggests that behavioural difficulties are not a major problem in implementing inclusive education in Bangladesh.

5.3.1.4 Teachers' attitudes towards children with physical disabilities

The results of this study show that Bangladeshi teachers hold the most negative views towards inclusive education for children with physical disabilities, such as vision or hearing impairments. It has been shown in different studies that teachers' attitudes towards inclusion depend on the characteristics of the children they teach (Leung & Mak, 2010). Most previous research had findings similar to those in the current study with regard to children with physical disabilities. For example, Mushoriwa (2001) found that the majority of teachers did not hold positive views of children with visual or hearing difficulties, and Glaubman & Lifshitz (2001) found that teachers are unwilling to teach children who are blind or deaf. Consequently, both Mushoriwa (2001) and Wilkins and Nietfeld (2004) argue that physically disabled children are not suited to the environment of regular classrooms. Teacher participants in one study (Charema, 2010) had positive attitudes to children with hearing disabilities because the government had provided necessary support for these children. Teachers appeared to be more positive towards inclusive education after receiving training (Meng, 2008).

The semi-structured interview findings from this study outline some of the barriers affecting the perceived ability to teach children with physical disabilities in Bangladesh. Most of the teachers interviewed felt they did not have sufficient basic or practical knowledge to teach children with physical disabilities in an inclusive environment. For instance, they did not know of any teaching strategies for physically disabled children. These findings are supported by those of Sadler (2005) and Chhabra, Srivastava and Srivastava (2010).

Participants who were interviewed in this study also described a lack of teaching materials and access to appropriate teaching aid materials, such as hearing aids or Braille resources, as problems in the implementation of inclusive education. Nevertheless, the negativity of teachers' beliefs also appears to be based on their stereotypes and prejudices. Glaubman and Lifshitz (2001) also supported the argument that teachers' stereotypes influenced their beliefs, which also affected their existing attitudes towards children with physical disabilities.

Although the teachers showed negative attitudes towards the inclusion of physically disabled children in mainstream classrooms, they had positive attitudes towards children with social, behavioural and academic difficulties. The researcher of this study considered some potential reasons that might have an impact on their attitudes, and has described them in the following sections.

5.3.1.5 Possible factors influencing teachers' attitudes towards inclusive education.

The demographic variables of the participants have an impact on their attitudes towards inclusive education in developing countries. These demographic variables include participants' age, gender and past experiences (Parasuram, 2006). Previous research has shown that female teachers' attitudes towards inclusion are significantly more favourable than male teachers' attitudes and females are more sensitive, positive and use culturally appropriate terms and references during interviews (Alghazo & Gaad, 2004). Similarly, Fakolade, Adeniyi and Tella (2009) found female teachers have more positive attitudes than their male counterparts. In the current study, in the questionnaire phase, 60% (18 out of 30) of participants were female, four out of six participants in the semi-structured interviews (more than 60%) were female. In an interview, one of the female interviewees explained students are like their own son or daughter, a belief that might be a reflection of female teacher sensitivity. In addition, Glaubman and Lifshitz (2001) found that teachers with less than a year of experience were significantly more positive than teachers with more experience. In the present study, fifteen teachers had teaching experience ranging between three and ten years. The others had more than ten years of experience. Consequently, in this study there might be an influence of demographic variables on the findings because of the small sample size and lack of gender balance.

Participants may have showed positivity because they teach in schools in Dhaka, which is the country's capital city and has a higher proportion of better quality schools. Glaubman and Lifshitz (2001) found that teachers from the cities were significantly more positive than their counterparts in the suburbs. Although

Meng (2008) found that urban teachers in China are not more supportive towards inclusion than their rural counterparts, the author acknowledges that urban schools can get more support for teachers than rural schools, and that the added support might, in other situations, have a positive impact on teachers' attitudes.

Another possible reason for the positivity of participants is government initiatives. For example Charema (2007) suggested that for the development of inclusive education there is an urgency to gain support from the government, for instance in the form of changes in policy. The Government of Bangladesh is trying to enact laws and policies for the implementation of inclusive education. Teachers are being trained under the Teaching Quality Improvement in Secondary Education Projects (TQI-SEP) by the Ministry of Education in Bangladesh.

Another reason may be that most participants believed that inclusive education is beneficial to all children with or without disabilities, for instance by ensuring that non-disabled children can have the opportunity to help and care for their peers. Deng and Guo (2007) argued that it is an opportunity to support one another which can improve the psychological experience of all students. Similarly, Ali, Mustapha and Jelas (2006) argued that inclusive education intensifies social interaction among children and decreases negative stereotypes. In addition Leatherman and Niemeyer (2005) argued for benefits from inclusive education for disabled children, their peers, teachers and the school as a whole. On the contrary, Priestly and Rabiee (2002) suggested that inclusion would be of little benefit to children with disabilities.

As previously discussed, inclusive education in Bangladesh is on a trial basis. Thus the current findings represent the views of teachers with little experience in this area. It is possible that their attitudes may become even more positive with more experience. Alternatively, attitudes towards inclusion may become less positive as a result of experience, a scenario which is supported by previous findings from Hodkinson (2006), where it was found that the attitudes of teachers in India may change with experience. The participants in this study might have changed their attitudes after more practical experience.

Moreover, the reason behind negative attitudes towards inclusive education is also considered to be due to some barriers such as lack of relevant teacher training, lack of teaching materials, teachers' insufficient knowledge and large size classes. Previous research supports the idea that such factors may have an impact on attitudes (Charema, 2007; Hossain, 2004; Kibria, 2005; Glaubman & Lifshitz, 2001; Michelle, 2009). Most of the interviewees mentioned those challenges in relation to inclusive education. Teachers noted that they do not know how to use Braille or sign language to deal with children with physical disabilities. They also claim that their knowledge of inclusive education, including their conceptualisation and practical knowledge, is not sufficient.

5.3.2 Teachers' conceptualisations of inclusive education

Findings from the present study showed that conceptualisations of inclusive education differ among individual participants. Most of the participants reported that

inclusive education is a term that relates to education for all, but one participant considered it as a way to remove social discrimination between social classes. The remaining participants considered inclusive education as an integration system to include special needs children. Hodkinson and Devarakonda (2009) also found that the term “inclusive education” is vague and difficult to define.

In this study, most of the participants believed that the reason behind their insufficient knowledge of inclusive education was a lack of training. In Bangladesh, there are few opportunities for school teachers to get training for inclusive education (Hossain, 2004; Kibria, 2005). The participants who took part in this study only received CPD training, which is training that focuses on the subject they teach, not on inclusive education. Four sessions of CPD training alone are not sufficient to get a clear understanding of inclusive education. The specific training on inclusive education for classroom teachers provided by TQI-SEP will supposedly be available for all teachers. At present, it is only available for a limited number of teachers in a few places. It was also mentioned earlier that the number of teachers trained in inclusive education is only 324 for the whole of Bangladesh, which is extremely insufficient (TQI-SEP, 2010). Moreover, the idea of inclusive education as a vague concept is supported by the notion of inclusion confusion according to Hornby (2010a). Hornby mentioned that there are different types of confusion surrounding inclusive education, namely the definition of the term inclusive education. There is also confusion in the labeling, curriculum and goals of inclusion, as well as etiology and what can realistically be achieved (Hornby, 2010a).

In summary, the findings revealed that teachers have positive attitudes towards children with social, academic and behavioural difficulties, but not children with physical disabilities, especially visual or hearing problems. Participants thought that they had insufficient basic and practical knowledge about inclusion, which served as an attitudinal barrier to it. Teachers also felt that they needed training to develop their skills (Ahsan & Burnip, 2007; Hossain, 2004; Kibria, 2005). Other factors have also been postulated as reasons for the negative attitudes of teachers. For example, large class size and a lack of teaching aid foster negative attitudes. Positive attitudes were often related to support from the government and the possibility of the passing of legislation for inclusive education. The recognition from the government in legislation on inclusive education as a manifestation of human rights would perhaps encourage teachers to be positive. Nevertheless, teachers need more training related to inclusive education for it to be implemented successfully, even if improved legislation is passed.

5.4 Limitations

The findings of this study could have implications for the successful implementation of inclusive education, but there are some limitations that must be considered. Firstly, only a small number of participants were chosen for the study. Thirty participants took part in questionnaire surveys, and six participants were involved in semi-structured interviews. This limits the generalisability of the findings. A second limitation of the study is that 60% of participants were female, while only 40% were male. There would ideally be an equal number of male and female participants in order to give an accurate representation of the population as a whole. A third

limitation was that data was only collected from urban schools; there were no rural schoolteachers in the participant list. Yet another limitation is that there was no verification of the translation of the interview from Bengali to English. Moreover, the questionnaire that was used for the survey was only found by others to have good reliability and validity. Although the questionnaire items are widely used in the context of developing countries (Sharma, 2002), no tests for reliability and validity were conducted by this researcher. However, the researcher conducted a pilot study to determine whether participants could understand the items of the questionnaire. Finally, the data gathered in this study are based on the participant teachers' self-reported information; the researcher had to rely on what the participants reported that they would do in any particular situation in their classroom. In fact, the researcher could not observe what they really do or implement in their practice, because inclusive education is still being piloted in Bangladesh and it is not being widely implemented at present.

5.5 Recommendations for future research

The main focus of this study was on what the attitudes were towards inclusion, rather than how these attitudes influence teachers' classroom behaviour. Similarly, it was the researcher's intention to find out how teachers conceptualise inclusive education in general rather than their understanding of all aspects of inclusive education. In addition, to narrow the scope of the study, only secondary education teachers were participants. There are also other factors which could have an influence on the attitudes and knowledge of teachers, such as their socio-economic status. Further research should continue to investigate how teachers' attitudes are reflected in their

behaviour whilst teaching in the classroom, both at primary and secondary level, as well as investigate primary and secondary teachers' understanding of the concept of inclusive education.

5.6 Recommendations for practice

The findings of this study provide a useful indication of the attitudes and knowledge of Bangladeshi teachers for people who are involved in various areas of the educational sector such as teachers, educational administrators and policy makers. This study also identified several issues regarding attitudes and knowledge towards inclusive education.

A teacher is always considered as the “key person” in the implementation of inclusive education (Boer, Pijl & Minnaert, 2011). Teachers play a vital role in the success of the implementation of any educational idea or concept. The successful implementation of inclusive education also depends on teachers' attitudes and knowledge (Harding & Darling, 2003). As such, this study helps to clarify teachers' knowledge about and views on inclusive education for children with different types of disabilities, and what these views and knowledge could mean for the implementation of inclusive education. This is because previous research (Leatherman & Niemeyer, 2005) has argued that teachers' attitudes towards inclusive education influence the success of their inclusive classrooms. It could be suggested that prior awareness of a teacher's attitudes and knowledge could determine whether that teacher will be successful in creating a positive inclusive learning environment.

With regard to educational administrators, this study offers insight into what resource allocation strategies are more likely to positively influence teacher attitudes. It will also give administrators a good idea of what teachers' beliefs and attitudes are, and what factors make the views of teachers positive or negative towards inclusive education. From this study, administrators could also estimate teachers' understanding of inclusive education and make subsequent plans for training that can fill the gaps in teachers' knowledge. Data suggested that though some teachers received training related to inclusive education, understanding of it is diverse. In particular, this study suggests that teachers need additional training to gain skills and knowledge (both basic and practical) which would allow them to be effective inclusive teachers.

This study will also be useful for those who have an interest in inclusive education policy. Many studies have indicated that support from a government can have a positive impact on teachers' attitudes, as well as the ability to affect the successful implementation of inclusive education (Charema, 2007). The information contained in the present study suggests that increased support may increase positivity towards inclusive education. Teachers who showed favourable attitudes towards inclusive education are likely to have received some training such as CPD (TQI-SEP, 2010) from the Government of Bangladesh, or were aware that inclusive education has been put forward as a concept for development in the recent 2010 Educational Policy.

In sum, this piece of research could have an impact on the field of educational research in Bangladesh, and subsequently may be a step towards the enrichment of

knowledge of inclusive education, not only for Bangladesh but also for other developing countries.

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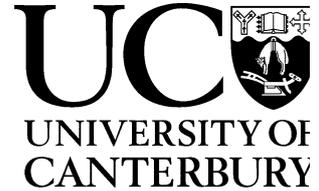
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Appendices

Appendix - 1



Telephone: + 64 3 02 110134145

Email: tania.khan@pg.canterbury.ac.nz

Date:

Research

Information sheet for the Head Teacher

(for informing them of the research procedure)

My name is Tania Afreen Khan. I am a teacher educator in Bangladesh and currently studying towards a Masters in Education at the University of Canterbury in New Zealand. As a partial requirement of my degree, I need to complete a research project for my thesis. The aim of my study is to explore secondary school teachers' attitudes towards and knowledge about inclusive education in Bangladesh.

I would like to invite five teachers from your school to be the participants. They will be asked to complete a questionnaire about their attitudes towards inclusive education. This will take no more than 15 minutes. During the completion of the questionnaire, they can ask any questions relating to this study. Besides this, I will interview one of them to explore her/his understanding of inclusive education. The interview will take no more than 30 minutes.

Their participation is completely voluntary. They have the right to withdraw from the study at any time, and they will not be penalized for it. If they want to withdraw, I will remove all information they provided. There is no potential risk or hazard in their participation in this study.

All information they provide will be treated in the strictest confidence, and they will remain anonymous. Pseudonyms will be used in place of real names. Any data that can identify your school or your colleagues (the participants) will not be given to any other researcher or agency. Only I and my supervisors will have access to these data.

As required by the policy of University of Canterbury, at the completion of the study all information which includes raw data collected will be retained in a secured stored place for five years, after which time it will be destroyed.

The results of the study may be submitted for publication to national or international journals or presented at educational conferences. The participants can ask for additional information or results from this study any time. I will provide you and the participants with the summary of results.

Please contact me if you have any other queries or concerns about the project. I can be reached by phone on +88 01711465593 (in Bangladesh) or +643 02 11034145 (in New Zealand). You can e-mail me at tak26@uclive.ac.nz. You can also contact to Mr. Md. Nazrul Islam, Joint Secretary & Project Director, TQI-SEP (Ph: 9562228, nazrul@tqi-sep.org) and my supervisors Professor Garry Hornby (garry.hornby@canterbury.ac.nz) and Professor David Mitchell (david.mitchell@canterbury.ac.nz) for any queries regarding this study. If you have any concerns or complaints about this research, please contact: The Chair, Educational Research Human Ethics Committee (ERHEC), University of Canterbury (see details below).

If you agree to this research being conducted in your school, please sign the attached consent form and return it to me in the envelope provided. Please retain this information sheet.

Thank you for your consideration of this research project.

Tania Afreen Khan (tania.khan@pg.canterbury.ac.nz)

This project has received ethical approval from the University of Canterbury Educational Research Human Ethics Committee. Complaints may be addressed to:

The Chair,
Educational Research Human Ethics Committee (ERHEC)
University of Canterbury
Private Bag 4800, Christchurch
Telephone: +64 3 3458312 Internal Phone: 44225

Appendix - 2



Telephone: + 64 3 02 110134145
Email: tania.khan@pg.canterbury.ac.nz
Date:

**Research Title: Investigation of the attitudes towards and knowledge about
inclusive education of secondary school teachers in Bangladesh**

Consent Form for the Head Teacher

I understand the aims and purposes of the research study undertaken by **Tania Afreen Khan**.

I have read the information provided about this research and understand that my school teachers' participation in this research is voluntary. They will complete a questionnaire regarding their attitudes towards inclusive education. They will also be interviewed by the researcher. They can withdraw themselves at any time from this study if they wish, and they will not be penalized for it. If they want to withdraw, the researcher will remove all information they provided.

I also understand that there is no potential risk or hazard in their participation in this study.

I am assured that their given information will be kept confidential and the findings of this research will not identify their name or the name of the school.

I understand that all data will be destroyed after five years, and the participants will receive a copy of the findings of this study.

I am informed that the results of the study may be submitted for publication to national or international journals or presented at educational conferences.

I understand that if I have any concerns or complaints about this research, I can contact: The Chair, Educational Research Human Ethics Committee (ERHEC), University of Canterbury. I can also contact the supervisors Professor Garry Hornby (garry.hornby@canterbury.ac.nz) and Professor David Mitchell (david.mitchell@canterbury.ac.nz) for any queries regarding this study.

By signing below, I agree to give permission for research to be conducted in this school.

Name of the Head Teacher:

Name of the school:

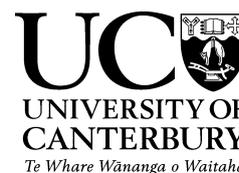
Signature and Date:

Please return this completed consent form to researcher (Tania Afreen khan) in the addressed and stamped envelope provided. Thank you for your contribution to this research

This project has received ethical approval from the University of Canterbury Educational Research Human Ethics Committee. Complaints may be addressed to:

The Chair, Educational Research Human Ethics Committee (ERHEC)
University of Canterbury, Private Bag 4800, Christchurch
Telephone: +64 3 3458312 Internal Phone: 44225

Appendix - 3



Telephone: + 64 3 02 110134145
Email: tania.khan@pg.canterbury.ac.nz
Date:

Research Title: Investigation of the attitudes towards and knowledge about inclusive education of secondary school teachers in Bangladesh Information Sheet for the Participants (survey questionnaire)

My name is Tania Afreen Khan. I am a teacher educator in Bangladesh and currently studying towards a Masters in Education at the University of Canterbury in New Zealand. As a partial requirement of my degree, I need to complete a research project for my thesis. The aim of my study is to explore secondary school teachers' attitudes towards and knowledge about inclusive education in Bangladesh.

I would like to invite you to participate in my current research project. If you are interested in taking part as a participant, you will complete a short questionnaire about your attitudes towards inclusive education in Bangladesh. This will take approximately 10-15 minutes. During the completion of the questionnaire, you can ask any questions relating to this study.

Your participation is completely voluntary. You have the right to withdraw from the study at any time by contacting me directly, and you will not be penalized for it. If you withdraw, I will remove all information you provided. There is no potential risk or hazard in your participation in this study.

All information you provide will be treated in the strictest confidence, and you will remain anonymous. Pseudonyms will be used in place of real names. Any data that can identify you will not be given to any other researcher or agency. Only I and my supervisors will have access to these data.

As required by the policy of University of Canterbury, at the completion of the study all information which includes raw data collected will be retained in a secured stored place for five years, after which time it will be destroyed. The results of the study may be submitted for publication to national or international journals or presented at educational conferences. You can ask for additional information or results from this study any time. I will provide you with the summary of results.

Please contact me if you have any other queries or concerns about the project. I can be reached by phone on +88 01711465593 (in Bangladesh) or +643 02 11034145 (in New Zealand). You can e-mail me at tak26@uclive.ac.nz. You can also contact to Mr. Md. Nazrul Islam, Joint Secretary & Project Director, TQI-SEP (Ph: 9562228, nazrul@tqi-sep.org) and my supervisors Professor Garry Hornby (garry.hornby@canterbury.ac.nz) and Professor David Mitchell (david.mitchell@canterbury.ac.nz) for any queries regarding this study. If you have any concerns or complaints about this research, please contact: The Chair, Educational Research Human Ethics Committee (ERHEC), University of Canterbury (see details below).

If you agree to participate in this research, please sign the attached consent form and return it to me in the envelope provided. Please retain this information sheet.

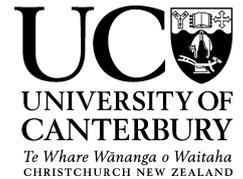
Thank you for your consideration of this research project.

Tania Afreen Khan (tania.khan@pg.canterbury.ac.nz)

This project has received ethical approval from the University of Canterbury Educational Research Human Ethics Committee. Complaints may be addressed to:

The Chair, Educational Research Human Ethics Committee (ERHEC)
University of Canterbury, Private Bag 4800, Christchurch
Telephone: +64 3 3458312 Internal Phone: 44225

Appendix - 4



Telephone: + 64 3 02 110134145

Email: tania.khan@pg.canterbury.ac.nz

Date:

Research Title: Investigation of the attitudes towards and knowledge about inclusive education of secondary school teachers in Bangladesh

Consent Form for Participants (survey questionnaire)

I understand the aims and purposes of the research study undertaken by **Tania Afreen Khan**. I have read the information provided about this research and I understand that I will complete a questionnaire regarding my attitudes towards inclusive education. I can ask any questions in relation to this study.

I also understand that my participation is voluntary and I can withdraw from this study at any time without any explanation if I wish.

I am also assured that any information I give will be kept confidential and it will be locked in a secure facility at the University of Canterbury where it will be destroyed after five years.

I understand that any information or opinions I provide will be kept confidential and anonymity will be assured. Neither I nor my school will be identified in the findings or publications.

I am assured that there is no potential risk or hazard in my participation in this study.

I am informed that I will be provided with the summary of results, and I can request a copy of the study. The results of the study may be submitted for publication to national or international journals or presented at educational conferences.

I understand that if any information is required then I can contact the researcher (Tania Afreen Khan) and her supervisors Professor Garry Hornby (garry.hornby@canterbury.ac.nz) and Professor David Mitchell (david.mitchell@canterbury.ac.nz). If I have any concerns or complaints, I can contact the Chair of the Educational Research Human Ethics Committee (ERHEC), University of Canterbury.

By signing below, I agree to participate in this research.

Name of the participant:

Name of the school:

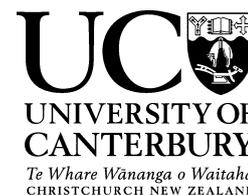
Signature and Date:

Please return this completed consent form to the researcher (Tania Afreen Khan) in the addressed and stamped envelope provided. Thank you for your contribution to this research

This project has received ethical approval from the University of Canterbury Educational Research Human Ethics Committee. Complaints may be addressed to:

The Chair, Educational Research Human Ethics Committee (ERHEC)
University of Canterbury, Private Bag 4800, Christchurch
Telephone: +64 3 3458312 Internal Phone: 44225

Appendix - 5



Telephone: + 64 3 02 110134145

Email: tania.khan@pg.canterbury.ac.nz

Date:

Research Title: Investigation of the attitudes towards and knowledge about inclusive education of secondary school teachers in Bangladesh Information Sheet for the Participants (semi-structured interview)

My name is Tania Afreen Khan. I am a teacher educator in Bangladesh and currently studying towards a Masters in Education at the University of Canterbury in New Zealand. As a partial requirement of my degree, I need to complete a research project for my thesis. The aim of my study is to explore secondary school teachers' attitudes towards and knowledge about inclusive education in Bangladesh.

I would like to invite you to participate in my current research project. If you are interested in taking part as a participant, I will interview you for 30 minutes. During the interview, I will ask you some questions regarding my research topic, and you and I will discuss these questions in order to understand your attitudes towards inclusive education in Bangladesh. You are allowed to ask any questions relating to this study. A voice recorder will be used to record our conversation, and you may ask to stop recording any time temporarily or permanently. I will provide you with a copy of the interview transcript for your review and approval.

Your participation is completely voluntary. You have the right to withdraw from the study at any time by contacting me directly, and you will not be penalized for it. If you withdraw, I will remove all information you provided. There is no potential risk or hazard in your participation in this study.

All information you provide will be treated in the strictest confidence, and you will remain anonymous. Pseudonyms will be used in place of real names. Any data that can identify you will not be given to any other researcher or agency. Only I and my supervisors will have access to these data.

As required by the policy of the University of Canterbury, at the completion of the study all information which includes raw data collected will be retained in a secured stored place for five years, after which time it will be destroyed.

The results of the study may be submitted for publication to national or international journals or presented at educational conferences.

You can ask for additional information or results from this study any time. I will provide you with the summary of results.

Please contact me if you have any other queries or concerns about the project. I can be reached by phone on +88 01711465593 (in Bangladesh) or +643 02 11034145 (in New Zealand). You can e-mail me at tak26@uclive.ac.nz. You can also contact to Mr. Md. Nazrul Islam, Joint Secretary & Project Director, TQI-SEP (Ph: 9562228, nazrul@tqi-sep.org) and my supervisors Professor Garry Hornby (garry.hornby@canterbury.ac.nz) and Professor David Mitchell (david.mitchell@canterbury.ac.nz) for any queries regarding this study. If you have

any concerns or complaints about this research, please contact: The Chair, Educational Research Human Ethics Committee (ERHEC), University of Canterbury (see details below). If you agree to participate in this research, please sign the attached consent form and return it to me in the envelope provided. Please retain this information sheet.

Thank you for your consideration of this research project.

Tania Afreen Khan (tania.khan@pg.canterbury.ac.nz)

This project has received ethical approval from the University of Canterbury Educational Research Human Ethics Committee. Complaints may be addressed to:

The Chair, Educational Research Human Ethics Committee (ERHEC)
University of Canterbury, Private Bag 4800, Christchurch
Telephone: +64 3 3458312 Internal Phone: 44225

Appendix - 6



Telephone: + 64 3 02 110134145
Email: tania.khan@pg.canterbury.ac.nz
Date:

Research Title: Investigation of the attitudes towards and knowledge about inclusive education of secondary school teachers in Bangladesh
Consent Form for Participants (semi-structured interview)

I understand the aims and purposes of the research study undertaken by **Tania Afreen Khan**. I have read the information provided about this research and I understand that I will be interviewed by the researcher for 30 minutes. I can ask any questions in relation to this study. I agree that the interview will be recorded, but I can ask to stop recording anytime temporarily or permanently. I will be given the transcript of the interview for my review and approval.

I also understand that my participation is voluntary and I can withdraw from this study at any time without any explanation if I wish.

I am assured that any information I give will be kept confidential and it will be locked in a secure facility at the University of Canterbury where it will be destroyed after five years. I understand that any information or opinions I provide will be kept confidential and anonymity will be assured. Neither I nor my school will be identified in the findings or publications.

I am assured that there is no potential risk or hazard in my participation in this study. I am informed that I will be provided with the summary of results, and I can request a copy of the study. The results of the study may be submitted for publication to national or international journals or presented at educational conferences.

I understand that if any information is required then I can contact the researcher (Tania Afreen Khan) and her supervisors Professor Garry Hornby (garry.hornby@canterbury.ac.nz) and Professor David Mitchell (david.mitchell@canterbury.ac.nz). If I have any concerns or complaints, I can contact the Chair of the Educational Research Human Ethics Committee (ERHEC), University of Canterbury.

By signing below, I agree to participate in this research.

Name of the participant:
Name of the school:
Signature and Date:

Please return this completed consent form to the researcher (Tania Afreen Khan) in the addressed and stamped envelope provided. Thank you for your contribution to this research

This project has received ethical approval from the University of Canterbury Educational Research Human Ethics Committee. Complaints may be addressed to:

The Chair, Educational Research Human Ethics Committee (ERHEC)
University of Canterbury, Private Bag 4800, Christchurch
Telephone: +64 3 3458312 Internal Phone: 44225

Appendix – 7

Questionnaire of teachers' attitudes toward inclusive education

(Developed by Wilczenski,F.L (1992)

Dear teachers:

I am conducting the survey under the permission of the Educational Research Human Ethics Committee (ERHEC) at the University of Canterbury in New Zealand. The information you provide will be helpful for understanding the practical situation of implementation, and beneficial for the further development of effective policy and practice of inclusive education in Bangladesh. Please take the time to complete the following questionnaire. There are no differentiations into correct or incorrect responses, all responses will be treated confidentially and will in no way be traceable to you, so please just tick the responses conforming to your situation freely.

Thank you for your assistance.

Personnel information:

School _____ Name _____ Gender _____ Age _____

Degree obtained _____ Number of years of teaching _____

Grade taught _____ Teaching subject _____

1) Students whose academic achievement is 2 or more years below the other students in the grade should be in regular classes.

1) strongly disagree (2) disagree (3) disagree somewhat (4) agree somewhat (5) agree (6) strongly agree

2) Students who are physically aggressive toward their peers should be in regular classes.

1) strongly disagree (2) disagree (3) disagree somewhat (4) agree somewhat (5) agree (6) strongly agree

3) Students who cannot move without the help from others should be in regular classes

1) strongly disagree (2) disagree (3) disagree somewhat (4) agree somewhat (5) agree (6) strongly agree

4). Students who are shy and withdrawn should be in regular classes.

1) strongly disagree (2) disagree (3) disagree somewhat (4) agree somewhat (5) agree (6) strongly agree

5) Students whose academic achievement is 1 year below the other students in the grade should be in regular classes.

1) strongly disagree (2) disagree (3) disagree somewhat (4) agree somewhat (5) agree (6) strongly agree

6) Students whose speech is difficult to understand should be in regular classes.

1) strongly disagree (2) disagree (3) disagree somewhat (4) agree somewhat (5) agree (6) strongly agree

7) Students who cannot read standard print and need to use Braille should be in regular classes.

1) strongly disagree (2) disagree (3) disagree somewhat (4) agree somewhat (5) agree (6) strongly agree

8). Students who are verbally aggressive toward their peers should be in regular classes.

1) strongly disagree (2) disagree (3) disagree somewhat (4) agree somewhat (5) agree (6) strongly agree

9) Students who have difficulty expressing their thoughts verbally should be in regular classes.

1) strongly disagree (2) disagree (3) disagree somewhat (4) agree somewhat (5) agree (6) strongly agree

10) Students who need training in self-help skills and activities of daily living should be in regular classes.

1) strongly disagree (2) disagree (3) disagree somewhat (4) agree somewhat (5) agree (6) strongly agree

11) Students who use sign language or communication boards should be in regular classes

1) strongly disagree (2) disagree (3) disagree somewhat (4) agree somewhat (5) agree (6) strongly agree

12). Students who cannot control their behaviour and disrupt activities should be in regular classes.

1) strongly disagree (2) disagree (3) disagree somewhat (4) agree somewhat (5) agree (6) strongly agree

13) Students who need an individualized functional academic program in everyday reading and math skills should be in regular classes.

1) strongly disagree (2) disagree (3) disagree somewhat (4) agree somewhat (5) agree (6) strongly agree

14) Students who cannot hear conversational speech should be in regular classes.

1) strongly disagree (2) disagree (3) disagree somewhat (4) agree somewhat (5) agree (6) strongly agree

15) Students who do not follow school rules for conduct should be in regular classes.

1) strongly disagree (2) disagree (3) disagree somewhat (4) agree somewhat (5) agree (6) strongly agree

16) Students who are frequently absent from school should be in regular classes.

1) strongly disagree (2) disagree (3) disagree somewhat (4) agree somewhat (5) agree (6) strongly agree.

Appendix – 8

Semi- structured interview schedule for secondary school teachers

Date:

Time:

Location:

Respondent:

- 1) What do you know about inclusive education? How do you come to know about it?
- 2) As a classroom teacher how could you describe inclusive education?
- 3) How is inclusive education related to or different from your regular practice? Could you give any example?
- 4) What kind of children, do you think, should be included in an inclusive classroom?
5. Do you consider those children who are very shy or often absent should be included in an inclusive classroom? What is your view towards children with social disabilities?
- 6) Do you think those children who often fail in some subjects, or who score below average should be taught in a regular classroom or in a separate classroom? Why?
- 7) Do you think the children with physical disabilities should be taught in a mainstream classroom or in a separate classroom? Why?
- 8) Do you think the children who are aggressive verbally or physically should be taught in a separate classroom or in the regular classroom?
- 9) What are the challenges, do you think, in including all kinds of children in the same classroom?
10. Do you think there is any benefit in including all kinds of children in a regular classroom?
- 11) What kind of knowledge or skills, do you think you may need to conduct an inclusive class?
- 12) What kind of supports or facilities, do you think you may need to conduct an inclusive class?
- 13) What is your overall comment on inclusive education?