EXPLORING PREDICTORS OF TEACHERS' INTENTIONS TOWARDS THE INCLUSION OF STUDENTS WITH DISABILITIES IN REGULAR PRIMARY SCHOOLS IN BANGLADESH

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General Declaration

Declaration for thesis based or partially based on conjointly published or unpublished work.

In accordance with Monash University Doctorate Regulation 17 Doctor of Philosophy and Research Master's regulations the following declarations are made:

I hereby declare that this thesis contains no material which has been accepted for the award of any other degree or diploma at any university or equivalent institution and that, to the best of my knowledge and belief, this thesis contains no material previously published or written by another person, except where due reference is made in the text of the thesis.

This thesis includes four original papers published in peer reviewed journals and two unpublished papers (under consideration). The core theme of the thesis is to examine the predictors of teachers' intentions towards the inclusion of students with disabilities in regular primary schools in Bangladesh. The ideas, development and writing up of all the papers in the thesis were the Principal responsibility of myself, the candidate, working within the Faculty of Education under the supervision of A/Professor Joanne Deppeler and Dr. Umesh Sharma.

In the case of the six papers, my contribution to the work involved the following:

Papers in the thesis chapter	Publication title	Publication status	Nature and extent of candidate's contribution	
			Nature of contribution	(%)
Chapter 3, Paper 1	Measuring perceived school support for inclusive education in Bangladesh: the development of a context specific scale.	Published	Sole author paper	100 %
Chapter 4, Paper 2	Variables affecting teachers' attitudes towards inclusive education in Bangladesh.	Published	Conducted the research, initiated the paper, reviewed literature, collected, coded and statistically	80%

			analysed data, prepared the draft manuscript, incorporated other authors' and reviewers' comments in final manuscript, prepared the final version and submitted for publication.	
Chapter 4, Paper 3	Impact of demographic variables and school support on teacher efficacy in inclusive classrooms in Bangladesh	Published	Conducted the research, initiated the paper, reviewed literature, collected, coded and statistically analysed data, prepared the draft manuscript, incorporated other authors' and reviewers' comments in final manuscript, prepared the final version and submitted for publication.	80%
Chapter 4, Paper 4	Variables affecting teachers' intentions to include students with disabilities in regular primary schools in Bangladesh.	Published	Conducted the research, initiated the paper, reviewed literature, collected, coded and statistically analysed data, prepared the draft manuscript, incorporated other authors' and reviewers' comments in final manuscript, prepared the final	80%

			version and submitted for publication.	
Chapter 4 Paper 5	Inclusive education in Bangladesh: Stumbling blocks on the path from policy to practice	Submitted	Sole author paper	100%
Chapter 5 Paper 6	Implementing inclusive education in primary schools in Bangladesh: Recommended strategies.	Submitted	Initiated the paper, reviewed literature (60%), prepared the draft manuscript, incorporated other author's comments, prepared the manuscript and submitted to the journal, incorporated editor's comments and resubmitted to the journal.	50%

I have renumbered sections of submitted or published papers in order to generate a consistent presentation within the thesis.

Signed:

Date: 01/01/2014

Dedication

This thesis is dedicated to my beloved mother, **Jahnara Begum,** who passed away from

a heart attack in Bangladesh during my Doctoral journey.

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List of candidate's publications included in the thesis

1. Ahmmed, M. (2013). Measuring perceived school support for inclusive education in Bangladesh: The development of a context specific scale. *Asia Pacific Education Review.* doi: 10.1007/s12564-013-9263-z. Springer Publishers.

2. Ahmmed, M., Sharma, U., & Deppeler. J. (2012). Variables affecting teachers' attitudes towards inclusive education in Bangladesh. *Journal of Research in Special Educational Needs, 12*(3), 132-140. Wiley-Blackwell Publishing Ltd, UK. 59978

3. Ahmmed, M., Sharma, U., & Deppeler. J. (2013). Impact of demographic variables and school support on teacher efficacy in inclusive classrooms in Bangladesh. *International Journal of Diversity in Education, 12*(2), 1-14. Common Ground Publishing, USA.
   (Also presented at the Twelfth International Conference on Diversity, Nations and Organizations, UBC, Vancouver, Canada.)

4. Ahmmed, M., Sharma, U., & Deppeler. J. (2013). Variables affecting teachers' intentions to include students with disabilities in regular primary schools in Bangladesh. *Disability & Society.* doi:10.1080/09687599.2013.796878. Routledge, UK.
   (Also presented at the MERC Conference, 2012, Monash University, Australia).

5. Ahmmed, M. (Submitted). Inclusive education in Bangladesh: Stumbling blocks on the path from policy to practice. *International Journal of Whole Schooling.* Whole Schooling Consortium, USA.
   (Also presented at the MERC Conference, 2013, Monash University, Australia).

6. Ahmmed, M., & Mullick, J. (2013). Implementing inclusive education in primary schools in Bangladesh: Recommended strategies. *Educational Research for Policy and Practice.* doi: 10.1007/s10671-013-9156-2. Springer Publishers.

Conference/poster presentations on matters relevant to this thesis

2013   MERC conference, Monash University, Australia

2013   International Conference on Inclusive Education, Dhaka, Bangladesh.

2012   Graduate Scholar Award at Diversity, Nations and Organizations Conference, UBC, Canada

2012   Twelfth International Conference on Diversity, Nations and Organizations, University of British Columbia, Vancouver, Canada

2012   Thesis presentation at ALAF-China Program, Melbourne, Australia.

2012   MERC conference, Monash University, Australia

2012   MERC-Global Education System Day, Monash University

2011   MERC Conference, Monash University, Australia

2010   MERC conference, Monash University, Australia

2009   Poster presentation, Monash University, Australia

List of Abbreviations

ADB	Asian Development Bank
ANOVA	Analysis of Variance
ASPR	Annual Sector Performance Report
AusAID	Australian Agency for International Development
C-in-ED	Certificate in Education
DfID	Department for International Development
DPE	Directorate of Primary Education
EFA	Education for All
FGI	Focus Group Interview
GoB	Government of Bangladesh
GPS	Government Primary School
HDI	Human Development Indicator
HLTA	Higher Level Teaching Assistants
IE	Inclusive Education
JICA	Japan International Cooperation Agency
MATIES	Multidimensional attitudes towards Inclusive Education scale
MDG	Millennium Development Goals
MOE	Ministry of Education
MOPME	Ministry of Primary and Mass Education
MOSW	Ministry of Social Welfare
MUHREC	Monash University Human Research Ethics Committee
NAATI	National Accreditation Authority for Translators and Interpreters
NAPE	National Academy for Primary Education
NFOWD	National Forum of Organizations Working with the Disabled
NPA	National Plan of Action
OECD	Organization for Economic Co-operation and Development
PBC	Perceived Behavioural Control
PD	Professional Development
PEDP II	Second Primary Education Development Programme
PEDP III	Third Primary Education Development Programme
PSSIE	Perceived school support for inclusive education
PTI	Primary Teachers' Training Institutes
RNGPS	Registered Non-Government Primary School
SAARC	South Asian Association of Regional Cooperation

SACIE	Sentiments, Attitudes & Concerns regarding Inclusive Education
SENCO	Special Educational Needs Coordinator
SMC	School Management Committee
SNS	Social Network Survey
SPATI	School Principals' Attitudes toward Inclusion
SPSS	Statistical Package for the Social Sciences
TEIP	Teacher Efficacy for Inclusive Practices
TES	Teacher Efficacy Scale
TPB	The Theory of Planned Behaviour
UK	United Kingdom
UN	United Nations
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations International Children's Emergency Fund
URC	Upazila Resource Centre
US	United States

List of Figures and Tables

Abstract

Over the last three decades, there has been a policy shift towards Inclusive Education (IE) across the world. This has led to reform initiatives aimed at access and equity for all students within regular classrooms, irrespective of children's individual differences on the basis of abilities, disabilities or any conditions due to their socio-economic or cultural background. Like many developing countries, Bangladesh has commenced IE reform to educate all school-aged children in its regular education system, particularly those who have been traditionally excluded (e.g., children with disabilities, those with social/economic disadvantage and those from ethnic minorities). Whilst enrolment of children with disabilities in regular schools has increased in Bangladesh, the majority of the 1.6 million children with disabilities remain out of school.

Past research indicates that the negative attitude of teachers is one of the significant barriers impeding the implementation of IE policies. Building upon previous research, this project sought to understand in-service teachers' attitudes towards enacting IE by using the Theory of Planned Behaviour (TPB) as the key conceptual framework. Use of this framework was considered critical for this research as it not only allows us to explore educators' attitudes but also to better understand other key constructs that may have a direct influence on attitudes and, ultimately, upon the behavioural intentions of teachers. Two key constructs potentially influencing behavioural intention conceptualised for this research were perceived teaching efficacy beliefs and perception of support available for inclusion of students with disabilities in regular classrooms. An investigation was made into what background variables could influence the key constructs of TPB (i.e. attitudes, perceived teaching efficacy, and behavioural intentions). More specifically, the major aims of the research were to examine the influence of teachers' attitudes towards inclusion of students with disabilities in regular classrooms, teacher efficacy to undertake inclusive practices in

classes, and their perceptions of school support for such practices, on their intentions to include students with disabilities in their classes. The study also investigated the influences of demographic variables and of perceived school support for IE on teachers' attitudes and teacher efficacy, assessing the levels of the major variables and the influential dynamics.

This study employed both survey questionnaires and focus group interviews. A total of 738 in-service teachers from government primary schools in Bangladesh's Dhaka division completed a survey and 22 in-service teachers participated in focus group interviews. Key findings of the research revealed that teacher attitudes, teacher efficacy and perceived school support were significant predictors that explained 40% of the variance in teachers' intentions to include students with disabilities in their classes. Teachers' attitudes towards inclusion rated close to neutral, perceived school support was distinctly negative, teacher efficacy was moderately positive, and teachers' intentions to include students with disabilities was slightly lower than 'somewhat positive' towards inclusion. Perceived school support was consistently a powerful predictor across the variables (i.e., teachers' intentions, teacher attitudes, and teacher efficacy). Specific demographic variables were also identified as important predictors of teachers' attitudes and their perceived teacher efficacy. Thematic analysis of the interview data found teachers' intentions put them in a quandary – they were simultaneously sceptical about the success of full inclusion, yet supportive of inclusion from social and professional perspectives. The interviews also identified salient institutional and environmental factors behind the teachers' intentions.

The study documented areas for further research (e.g., context specificity, factors behind attitude status and effectiveness of training strategies) as well as offered specific recommendations for educational policy makers and teacher educators (e.g.,

building training programmes for the teachers that address IE requirements). As teachers' behaviour in the classroom is critical to the successful implementation of IE reform, it is imperative that a thorough understanding of the influences and motivators is attained. This study offers a contribution towards such an understanding with its findings that elucidate the impact of and relationships between the investigated variables.

Overview of the Thesis

This thesis includes both published and unpublished work. A total of six journal articles which have been submitted to, accepted or published by academic journals have been included within the body of the thesis. Connected with each other and the chapters, these included papers form the complete thesis. Prior to and following the paper(s) a section of text describes how they are related to each other and rest of the thesis.

Each of the six papers reported on a different aspect of the study. While Papers 1- 5 reported on the empirical findings, Paper 6 addressed the implications of the study. The thesis consists of five chapters, each of which focuses on an individual and integral aspect of the study:

- **Chapter 1** presents the background of the study, contextual issues, research questions and rationale of the study, and theoretical framework.

- **Chapter 2** presents the literature review. Whilst each paper included in this thesis has a review of the research literature relevant to its content, to extend a more critical discussion of the literature, a dedicated literature review, focusing on the study's key variables (i.e., teacher attitudes towards inclusion of students with disabilities, teacher efficacy to implement inclusive practices and perceived school support for inclusive practices) has been provided in this chapter.

- **Chapter 3** delineates the methodology utilised, introducing the survey instruments, focus group interviews guided questions, participants, data collection procedures, and data analysis techniques. Paper 1, *Measuring perceived school support for inclusive education in Bangladesh: the development of a context specific scale,* which described the development of the

instrument used to measure school support for inclusive education, has been included in this chapter.

- **Chapter 4** presents the findings of the study through four papers:

  ➢ Variables affecting teachers' attitudes towards inclusive education in Bangladesh (Paper 2);

  ➢ Impact of demographic variables and school support on teacher efficacy in inclusive classrooms in Bangladesh (Paper 3);

  ➢ Variables affecting teachers' intentions to include students with disabilities in regular primary schools in Bangladesh (Paper 4);and

  ➢ Inclusive education in Bangladesh: Stumbling blocks on the path from policy to practice (Paper 5).

  This chapter also augments the above papers with a section containing additional information not otherwise included, such as expanded results.

- **Chapter 5** provides a summary of the findings and integrated discussion, including implications of the study, limitations and directions for further research. The chapter is followed by an epilogue which includes Paper 6, *Implementing inclusive education in primary schools in Bangladesh: Recommended strategies*, that focuses on the broader implications of this study.

Each of the included papers lists its own references, and the *References* section lists any supplementary citations from the body of the thesis. Supporting documents are included as appendices. These include survey questionnaires, documents related to ethics

approval and focus group guiding questions. It is acknowledged that, consistent with the nature of a thesis by publication, some overlap and repetition may occur across the papers, chapters, and some core ideas of the study that relate primarily to the key variables. The researcher has made every attempt to minimise this overlap.

<div align="center">**Chapter 1**</div>

<div align="center">**Introduction**</div>

Background of the Study

> One of the greatest problems facing the world today is the growing number of persons who are excluded from meaningful participation in the economic, social, political and cultural life of their communities. Such a society is neither efficient nor safe. (UNESCO, 2003, p. 3)

The World Conference on Education for All in Jomtien, Thailand, in 1990, adopted the *World Declaration on Education for All: Meeting Basic Learning Needs* to make primary education accessible to all children, in accordance with the notion embedded in the Universal Declaration of Human Rights that "everyone has the right to education" (UN, 1948, Article 26). The 1990 Declaration recognised that existing strategies and programmes addressing the needs of children who are vulnerable to marginalisation and exclusion in education were either inadequate or incongruent with the aim of all children receiving education (UNESCO, 2003). Following this, in 1994, the Salamanca Declaration foreshadowed the guiding principles, policies and practices of Special Needs Education. This Declaration recognised a necessity to develop a system of *schools for all* that "include everybody, celebrate differences, support learning, and respond to individual needs" (UNESCO, 1994, p. iii):

> ….schools should accommodate all children regardless of their physical, intellectual, social, emotional, linguistic or other conditions. This should include disabled and gifted children, street and working children, children from remote or nomadic populations, children from linguistic, ethnic or cultural minorities and children from other disadvantaged or marginalised areas or groups. (UNESCO, 1994, p. 6)

In 2000, it was estimated that there were 113 million children in the world who did not have access to education (UNESCO, 2000). Under these conditions, the Dakar Declaration (UNESCO, 2000) was undertaken to re-affirm the vision of the World Declaration on Education for All (UNESCO, 1990) and The Salamanca Statement on

Special Needs Education (UNESCO, 1994), both of which were originally guided by the Universal Declaration of Human Rights (UN, 1948) and the Convention on the Rights of the Child (UN, 1989). Members of the world community thus affirmed Inclusive Education (IE) as one of the main strategies to achieve Education for All (EFA) and espoused commitment to ensuring access to free, compulsory and quality education for all children by 2015 (UNESCO, 2000).

IE reform has long been on the global educational agenda and most countries around the world have undertaken IE policy reform to educate all children in mainstream education systems, irrespective of their "diverse biographical, developmental and learning trajectories" (Liasidou, 2012, p. 5). Similarly, the implementation of IE has been a strategy introduced in most developing countries, including Bangladesh, to provide education to disadvantaged children, including those with disabilities, in regular classrooms (DPE, 2011a).   Traditionally, access to education for children with a disability in Bangladesh is extremely limited (Alam, 2009) because of many issues including lack of adequate special schools, lack of awareness, negative attitudes of stakeholders and stigma attached to disabilities (Ackerman, Thormann, & Huq, 2005). Instituting IE has significantly progressed improved access to primary education in Bangladesh, as in many developing countries, allowing children with disabilities to enrol in mainstream schools. However, concerns have been raised that the quality of education in general schools in many countries has been compromised in the quest towards the 'Education for All' milestone (UNESCO, 2003, p. 13). IE implementation demands schools provide for a diversity of students, regardless of their abilities and differences (Kinsella & Senior, 2008): to ensure effective inclusive practices in regular classrooms, teachers need to respond to all groups of learners, including those with disabilities.

There are many instances of international research highlighting the importance of positive attitudes of teachers towards inclusion, high perceived confidence for enacting inclusive practices and adequate resources and support, discussed as follows. For example, Cook (2002) and Loreman, Forlin, and Sharma (2007) indicate that a potentially significant variable in successfully undertaking IE is positive attitude of the teachers. A global monitoring report by UNESCO (2010) indicates that learning opportunities for children with disabilities are often restricted by negative attitudes in classrooms from teachers and from peers. This report suggests that negative attitudes of teachers towards students with disabilities may be associated with a lack of disability friendly infrastructure, limited training opportunities for the teachers, and lack of teaching aids. It is agreed that the provision of an effective learning environment for children with disabilities and the full implementation of any inclusive policy is largely dependent on educators being positive about it (Avramidis & Norwich, 2002; de Boer, Pijl & Minnaert, 2011). Another variable related to implementing IE in classrooms that has attracted the attention of educational researchers recently is teacher efficacy to perform inclusive practices (Savolainen, Engelbrecht, Nel & Malinen, 2012). It has been argued that implementing IE at the classroom level requires a high level of teacher efficacy (Sharma, Loreman, & Forlin, 2012). Apart from teacher attitudes and efficacy, teachers' perceptions of school support have also been regarded as critical for implementing IE practices in the classroom. For instance, Talmor, Reiter, and Feigin (2005) argued that teachers are inclined to experience high levels of stress when executing IE procedures if they feel they are not well supported. It has also been noted that most developing countries experience major constraints from serious shortages of both human and material resources and the absence of support (UNESCO, 2003). Hence, it is evident that teacher attitudes towards IE, teacher efficacy to implement inclusive practices and teachers' perception of school support are fundamental variables that

require investigation to facilitate IE policy implementation in classroom practices across a variety of contexts. This is particularly pertinent in a country like Bangladesh, where IE has been applied as a strategy to educate all school-aged children in regular classrooms in order to achieve Education for All (EFA) and Millennium Development Goals (MDGs) milestones.

Understanding the Context

A general overview of Bangladesh.

Bangladesh is a developing country in South Asia, densely populated with about 165 million people on 143,998 square kilometres of land, equal to nearly 1,146 people per square kilometre (The World Factbook, 2013). The literacy rate of the population (seven years and above) is 56.10% (Bangladesh Bureau of Statistics, 2010). Bangladesh has a high degree of cultural, linguistic, religious, and ethnic homogeneity (Choudhury, 2012) and is a close knit and collective society. This collectivism is present everywhere - family, educational institutions and workplaces (Rahman, 2005).

Despite economic challenges (UNDP, 2011), Bangladesh has achieved considerable improvement in primary education enrolment and retention in recent years, particularly in addressing gender parity (UNESCO, 2010). According to the Bangladesh Primary Education Annual Sector Performance Report (ASPR-2012) the current net enrolment rate in primary education is 98.7% (girls 99.4% and boys 97.2%) (DPE, 2012). The same report further reveals that the current dropout rate is 11.1% (Grade 5), repetition rate is 10.7% in Grade 1, about 10-13% in grades 2-4 and 3.5% in Grade 5. The overall absenteeism rate is 14.93 %, and the primary education completion rate is 70.3%. There are very limited statistics about people with disabilities in Bangladesh

(Ministry of Social Welfare [MOSW], 2010): trying to find "the current status of disabled children in Bangladesh is an exercise in frustration" (UNICEF, 2007, p.32).

Available statistics indicate there are approximately 9 million people with disabilities in Bangladesh (Handicap International, 2005), around 1.6 million of whom are school-aged children. Of these, 4% attend a range of special, integrated, non-formal and casual inclusive school settings (Disability Rights Watch Group Bangladesh 2009, p. 4). The main reasons the remainder are out of any form of education are the lack of special schools and the social stigma attached to disability. A study reported that the capacity of government run special schools in Bangladesh is to accommodate "fewer than 1500" children with disabilities and "only those with selected disabilities (hearing, vision, and intellectual disabilities) are served" (Ackerman et al., 2005, p. v). As in other developing countries, people with disabilities in Bangladesh experience social exclusion due to prejudices associated with their impairments (Foley & Chowdhury, 2007).

Exclusion and discrimination on the basis of caste, gender, ethnicity, or disability occurs in many public institutions and educational institutions across the world have not been immune, including those in South-Asian countries (DFID, 2005): there are "socio-cultural barriers and prejudices" against people with disabilities in communities, within schools and the education system in South Asian countries, including Bangladesh (UNICEF, 2007, p. 33). Disability has a distressing impact on the quality of life of these people which affects their educational attainment and social life, argues Hosain, Atkinson, and Underwood (2002). Recent policy level and programme initiatives in Bangladesh have opened new educational opportunities for school-aged children with a disability in regular schools and, consequently, the number of these children attending regular schools has increased (DPE, 2012). Miles, Fefoame,

Mulligan, and Haque (2012) argue that "the sheer size, density and relative homogeneity of the Bangladeshi population" is an advantage when promoting the social inclusion of people with disabilities (p. 299).

Inclusive education initiatives in Bangladesh.

The ongoing global emphasis on the rights of all children to quality education has been reflected in Bangladesh with its recent education policy reform. Bangladesh is committed to ensuring universal primary education and IE as part of its involvement with international initiatives addressing EFA and IE, such as the *World Declaration on Education for All* (UNESCO, 1990), the *Salamanca Statement and Framework of Action on Special Needs Education* (UNESCO, 1994), the *Dakar Framework for Action*, (UNESCO, 2000), and *Millennium Development Goals 2000* (UN, 2000). Simultaneously, the National Constitution of Bangladesh (1972) directs the country to achieve education for all children through 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" (article, 17). The initiatives in primary education in Bangladesh started in 1981 with the Primary Education Act but the growth and development of primary education gained distinctive impetus with the Millennium Development Goals (MDG) and Education for All (EFA) (DPE, 2011a; MDG Bangladesh progress report, 2011). These initiatives have been considered to be a catalyst for poverty reduction by addressing social inclusion, based on the notion that illiteracy and social exclusion cause poverty (UNICEF, 2007).

Bangladesh has initiated a number of policies (e.g., National Education Policy 2010) and acts (e.g., Bangladesh Persons with Disabilities Welfare Act 2001) to achieve education for all children in regular schools and to prioritise IE as a strategy (MOSW, 2001). The National Education Policy 2010, for example, emphasises the inclusion of

children with disadvantaged conditions- particularly those with disabilities, girls, children from ethnic communities and children who are disadvantaged owing to socio-economic conditions - in mainstream schools. To translate these initiatives into practice, the country has undertaken a number of programmes over the last decade (e.g., Primary Education Development Programmes [PEDP] II). Each of these initiatives has progressed student enrolment, as expected under the MDG (UNDP, 2010). The Third Primary Education Development Programme (PEDP III), a five year long plan which started in 2012, has taken various measures to implement IE in primary schools in Bangladesh. With the support of international development partners (e.g., Asian Development Bank [ADB], World Bank), the Government of Bangladesh is spending US$8.3 billion on this programme. The whole primary education system is under the jurisdiction of PEDP III that aims to establish "an efficient, inclusive and equitable primary education system delivering effective and relevant child-friendly learning to all Bangladesh's children from pre-primary through Grade V primary" (DPE, 2011a, p. 3). During the second Primary Education Development Programme (PEDPII) from 2004 to 2011, it was found that, owing to a lack of institutional experience and capacity and IE opportunities, many disadvantaged and vulnerable children (e.g., children from ethnic minorities, children with disabilities) had not been educated to the expected level (DPE, 2012). Building upon the evaluation of PEDP II a number of priorities have been identified for PEDP III including: improved student learning outcomes, universal access and participation, and reducing disparities among student, in particular girls, children with disabilities, those in difficult circumstances and those belonging to ethnic minorities (DPE, 2011a). This is consistent with Bangladesh's categorisation of IE, that refers specifically to providing education to groups of children "with mild to moderate physical or learning disabilities, ethnic minorities, urban street children, tribal children, extremely poor children" within the mainstream education system (DPE, 2011b, p. 9).

This direction was determined at a review workshop in 2001 organised by UNESCO-Dhaka, along with other stakeholders of education in Bangladesh, when Bangladesh developed a working definition of IE to make it operational:

> Inclusive Education is an approach to improve the education system by limiting and removing barriers to learning and acknowledging individual children's needs and potential. The goal of this approach is to make a significant impact on the educational opportunities of those who attend school but who for different reasons do not achieve adequately and those who are not attending school but who could attend if families, communities, schools and education systems were more responsive to their requirements. (Ahuja & Ibrahim, 2006, p. 6)

These IE initiatives have had a positive impact on primary education in Bangladesh but still face a number of challenges to ensuring access and quality education for all students in mainstream classrooms.

Hence, it is clear that inclusive education in Bangladesh has been enacted as a strategy to include all school-aged children, including those children with disabilities and others who remain out of schooling. There is very little or no special education in Bangladesh. The big challenge for educational reformers in Bangladesh is not with equity of access (i.e. including all school- age children who currently do not attend school) but most importantly combining quality with equity once children are in school. This will involve strategic and long-term efforts focused on changing the culture of educational institutions to become more responsive to difference (Field, Kuczera & Pont, 2007) and to ensure that personal and social circumstances are not obstacles to educational achievement.

Prospects and challenges in implementing IE reform.

Bangladesh has made definite progress in improving access to primary education and achieved gender parity (UNESCO, 2012). In spite of this development in students' enrolment, gender equality and increasing numbers of diverse students in

mainstream schools, one of the major challenges towards achieving education of all children that prevails is to provide quality education to the 1.6 million school- aged children with disabilities, the majority of whom are yet to enrol in regular schools (Disability Rights Watch Group Bangladesh, 2009). The conditions of school-aged children with disabilities in Bangladesh have been reflected in the UNICEF's report:

> Most children with disabilities are silent and invisible members of many communities. They are taken advantage of, and are at risk of abuse, exploitation, and harassment. Most never attend schools, and if they do attend they meet unfriendly attitudes that lead to dropouts (UNICEF, 2007, p. 33).

Ackerman et al. revealed that the lack of "qualified and trained teachers, appropriate infrastructure, teaching materials, and assistive technology, as well as the stigma associated with disability" are major barriers to the education of children with disabilities in Bangladesh (2005, p. iv). A study by the Disability Rights Watch Group Bangladesh (2009) made similar observations about obstacles impeding the target of inclusion of children with disabilities. It warned that, without proactively enrolling these children and making school environments disability friendly, Bangladesh's inclusionary targets will not be met. This study also noted teachers must be adequately trained, the curriculum must be flexible, the school infrastructure modified and other (non-disabled) students have to learn about the needs of children with disabilities if the schools are to be really inclusive (Disability Rights Watch Group Bangladesh, 2009).

It is encouraging that the number of children with disabilities enrolled in Government Primary Schools (GPS) and Registered Non-Government Primary Schools (RNGPS) has been increasing substantially over the years, as shown in the DPE's Annual Sector Performance Report 2012 (DPE, 2012) (see Figure 1). The report shows that a total of 118,575 children with disabilities (physical, visual, hearing, speaking and intellectual) aged 3-14 years were enrolled in various types of schools and the

enrolment rate had gradually increased. The report further shows that, among these enrolled children, the rate of enrolment of rural children (60.7%) was higher than that of urban children (54.3%). In their study, Sabates, Hossain, and Lewin (2010) found disability to be one of the major factors in children dropping out of school and also in feeling marginalisation from education in Bangladesh.
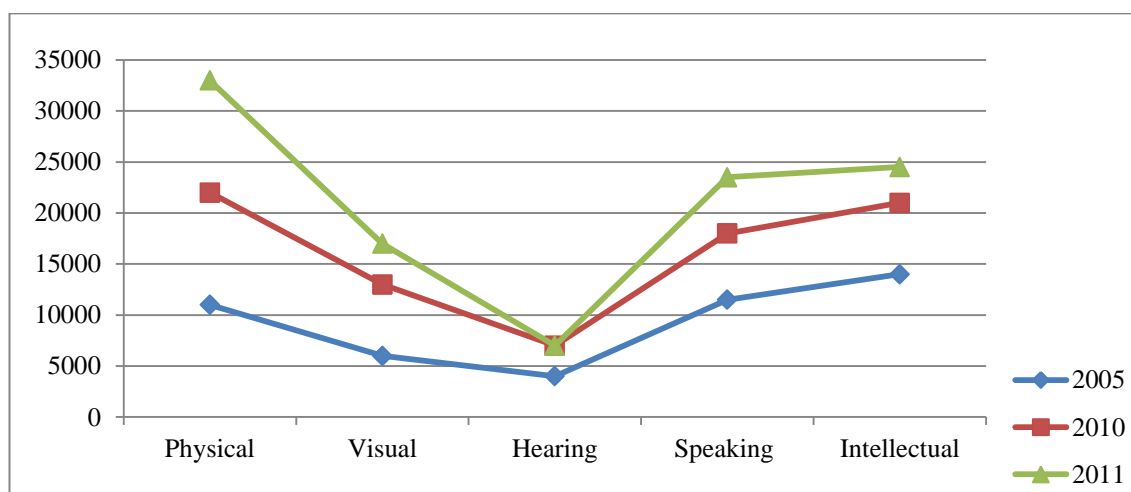
Figure 1. The number of enrolled children with disabilities (physical, visual, hearing, speaking and intellectual) in 2005, 2010 and 2011 (DPE, 2012, p. 55)

In order to expedite the inclusion process in primary education in Bangladesh and to sustain it, it is necessary to ensure quality of education for all children in regular classrooms: IE does not mean merely the inclusion of all students in regular classes, it means quality of education for all students (UNESCO, 2009a). For this, teachers are the instrumental and primary stakeholders (OECD, 2005). Although teachers' positive attitudes (e.g., Savolainen et al., 2012), elevated teacher efficacy (Sharma et al., 2012) and affirmative perception of school support (UNICEF, 2007) are shown to be important predictors of the successful introduction of IE, there is a distinct lack of studies in the context of Bangladesh that examined these variables with regard to primary schools' in-service teachers.

Rationale of the Study

IE reform in Bangladesh, to educate all school-aged children, including those with a disability, in regular schools, has moved beyond the introduction stage to be well into the implementation stage, moving Bangladesh towards its EFA and MDG goals. The strategy of IE brings hope for equal educational opportunity in the mainstream education system to all children in Bangladesh. The approach has already made substantive improvements in students' enrolment in primary education in Bangladesh (e.g., primary education has achieved gender parity with 99.4% girls' enrolment rate) (DPE, 2012). Certainly, IE has opened educational opportunities for children with a disability in regular schools, the majority of whom have been without formal education because of systematic barriers (Ackerman et al., 2005) such as a lack of special schools and a lack of educational opportunity in regular schools.

Teachers are the key players to make IE enactment successful (Hsieh, Hsieh, Ostrosky, & McCollum, 2012). Past studies (e.g., Cook, 2002; Kim, 2011) suggest that successful implementation of IE practices require teachers to have positive attitudes, as a negative attitude among teachers is shown to be a significant barrier to establishing IE policies. Teacher efficacy to implement inclusive practices has recently been described as another influential teacher attribute (Sharma, et al., 2012). Other studies (e.g., Shevlin, Winter, & Flynn, 2012) indicated that support and resources are very important factors that aid the teachers in successful implementation of IE in their classroom practices. Interestingly, the majority of these international studies concentrated on a single variable - teacher attitudes - while very few studies (e.g. Yan & Sin, 2013) examined all of the abovementioned variables together in a single study to understand, systematically, the progress and success of IE enactment. Of these few, such a study in the context of primary education in Bangladesh was not found. Hence, it is important to

examine these variables (i.e., teacher attitudes, teacher efficacy and perceived school support) in the Bangladesh context to understand their association with IE implementation, considering the country has already engaged in a number of IE policies, acts and programmes and invested a huge amount of money and effort.

This project builds upon past research and uses the Theory of Planned Behaviour (TPB) as the key conceptual framework to understand Bangladesh's in-service teachers' attitudes to implementing IE, their sense of teacher efficacy, and their perceptions of school support for IE practices. The TPB framework was considered fitting for this research as it not only allows us to explore educators' attitudes but also to better understand other key constructs (i.e., teacher efficacy and perceived school support) that may have a direct influence on attitudes and, ultimately, upon behavioural intentions of teachers. Therefore, the three main constructs potentially influencing behavioural intentions of teachers conceptualised for this research were: teacher attitudes towards inclusion; perceived teaching efficacy beliefs; and, perception of support available for including students with disabilities in mainstream classrooms. The study seeks an understanding of the background variables influencing the key constructs of TPB - attitudes, perceived teaching efficacy and behavioural intentions. Specifically, the major aims of the research are to examine the influence on intentions to include students with disabilities in their classes of: teachers' attitudes towards inclusion of students with disabilities in regular classrooms; teacher efficacy to undertake inclusive practices in classes; and their perceptions of school support for such practices. The study also investigates the influence of demographic variables and perceived school support for IE implementation on teachers' attitudes and teacher efficacy, simultaneously assessing the levels of the major variables and the influential dynamics.

To achieve this, the project pursued a number of strands of investigation:

- One focused on developing a means by which to measure perceived school support, included in Paper 1.

- Teacher attitudes and teacher efficacy were separately examined, as discussed in Papers 2 and 3 respectively.

- The strand of study concentrating on predictors of teachers' intentions is included in Paper 4.

- Teachers' views about inclusion and the factors underpinning these views are scrutinised and considered in Paper 5.

- The broader implications of the whole study are summarised in Paper 6.

One of the challenging issues for a developing country such as Bangladesh is the lack of contextually relevant, empirical studies of undertaking an educational intervention (Malak, 2013a) and so there is over-reliance on research from Western countries. Like any other education, IE is context specific (Ainscow, Booth, & Dyson, 2006) and is given distinct interpretations at the cross-section of developed and developing countries, despite the underlying philosophy commonly aiming for "social integration and cohesion" (Armstrong, Armstrong, & Spandagou, 2011, p. 29). We also know that, more than anything else, context impacts on the particular ways in which IE is enacted (Ainscow & Cesar, 2006). We do not know, however, what is important to the success of IE implementation in classroom practices in the context of Bangladesh. Therefore, it is anticipated such knowledge is vital to facilitate timely, suitable and more effective initiatives for implementing IE practices at the classroom level in primary schools in Bangladesh. It is also anticipated that such knowledge may contribute to ongoing IE-related programmes in Bangladesh (e.g., PEDP III) by providing details of predictors associated with teachers' behavioural intentions to implement IE practices in their classes. The study's findings can offer stakeholders a cache of new information to contribute towards initiatives for improving teachers' positive intentions and attitudes,

increasing their sense of teaching efficacy and providing school support for achieving quality education for all students by IE, to be incorporated in PEDP III's holistic programmes (e.g., teacher training, curriculum development, school support, empowerment of the school leaderships). This study aims to influence the pursuit of quality EFA in Bangladesh (and other comparable countries in South Asia) by providing knowledge to make sure EFA endeavours are accompanied by positive attitudes, greater teacher efficacy, and teachers feeling they have adequate school support and resources. It may also contribute to academia by adding empirical findings on IE from a developing country perspective that is currently lacking. The findings of this study may benefit teachers, teacher educators, policy makers, and development partners of Bangladesh by informing them about the determinants of teachers' behavioural intentions to include and teach students with disabilities in their classrooms. Teacher training programmes for inclusive education in Bangladesh may use the findings to regulate their training programmes for effective inclusive education. The study's findings may benefit practicing teachers by prompting them to reflect on their own teaching practices and experiences which, in turn, may impact on their future intention to include and teach diverse students in their classrooms. This current study may also contribute to ongoing inclusive education reform initiatives in Bangladesh by describing, analysing and understanding existing scenarios of teachers' intentions to include and teach students with disabilities for inclusive education. It may, thus, add new knowledge about inclusive education from a developing country's perspective.

Aims of the Study and Research Questions

Bangladesh has demonstrated its commitment to adopting IE through significant effort and investment, as shown by the National Education policies, acts and programmes and this commitment is supported by the US$8.3 billion PEDP III budget

allocation. However, as noted above, despite an increasing number of diverse students in regular classrooms, 96% of the 1.6 million children with disabilities are yet to enrol. As research findings from other contexts have found teacher attitudes, teacher efficacy and school support to be significant predictors to measure the progress of IE, a theoretical model which elucidates the connections between these different variables is required. The Theory of Planned Behaviour[1] (TPB) (Ajzen, 1991) provides a framework for understanding the effects of variables such as the relationship between attitudes toward behaviours, normative beliefs, perceived behavioural control and intention to perform behaviour, making it appropriate to use in this study to examine the influence of the abovementioned variables – teachers' attitudes towards inclusion, efficacy to undertake inclusive practices, and perceptions of school support for such practices - on teachers' behavioural intentions to include children with disabilities in their classes. To investigate these and the influence of the other stated variables - demographic factors and perceived school support for IE - on teachers' attitudes and teacher efficacy, the following research questions were formulated:

1. Is there any significant relationship between teachers' attitudes towards inclusion of students with disabilities in the regular classrooms and the background variables of teachers?

2. Is there any significant relationship between perceived school support for implementing inclusive practices and teachers' attitudes towards inclusion of students with disabilities in the regular classrooms?

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[1] See Theoretical framework section for details of TPB

3. Is there any significant relationship between perceived teacher efficacy in inclusive classrooms and the background variables of teachers?

4. Is there any significant relationship between perceived school support for implementing inclusive practices and perceived teacher efficacy in inclusive classrooms?

5. Do teachers' attitudes towards the inclusion of students with disabilities, teacher efficacy to implement inclusive practices in classrooms, and perceived school support for implementing inclusive practices predict teachers' behavioural intentions to include students with disabilities in regular classrooms?

6. Do demographic variables contribute to the prediction of teachers' intentions?

7. What are the existing levels of teacher attitudes towards inclusion, teacher efficacy to implement inclusive practices in classrooms, perceived school support for implementing inclusive practices in the classrooms, and teachers' behavioural intentions to include students with disabilities in regular classrooms in primary education in Bangladesh?

8. Is there any significant relationship between teacher efficacy and teachers' attitudes towards inclusion of students with disabilities?

9. What are teachers' views about the inclusion of students with disabilities in regular classrooms in government primary schools in Bangladesh?

10. What other factors might influence teachers' ideas about including students with disabilities in their classrooms?

Theoretical Framework

As indicated, the study's variables have been conceptualised using the framework of the Theory of Planned Behaviour (TPB) (Ajzen, 1991). Figure 2 illustrates the relationships between the variables within this framework, which is an extension of the original theory of Reasoned Action by Fishbein and Ajzen (1975). In this study, the TPB model held that the investigated variables represent the determinants of behavioural intent, that is, teachers' intentions to include students with disabilities in regular classes.
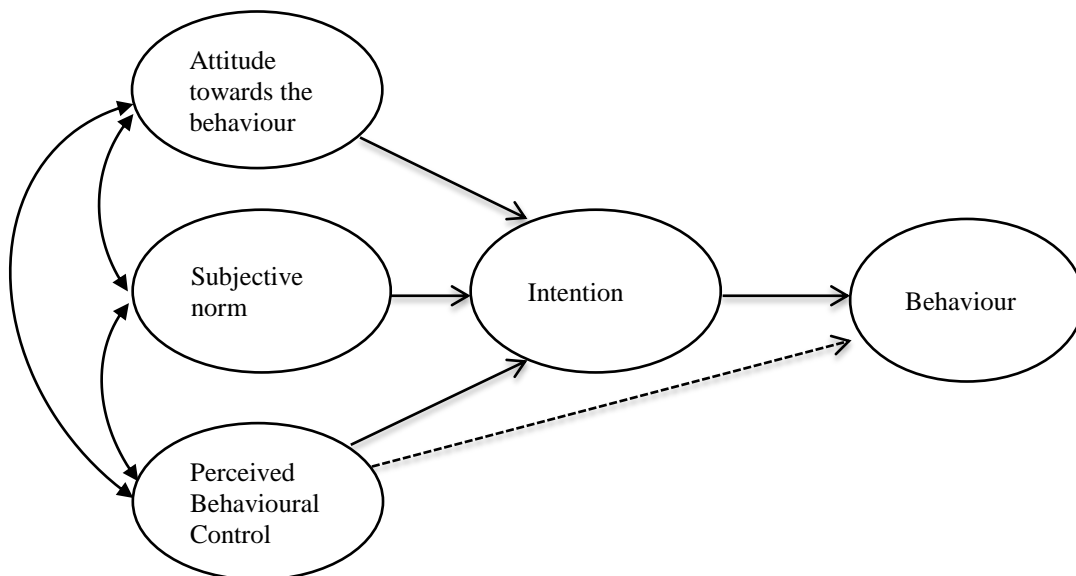
Figure 2. Relationships between factors within the Theory of Planned Behaviour (Ajzen, 1991)

The TPB indicates purposes and actions can be determined by three factors: (1) a person's attitude towards a behaviour (personal in nature), (2) the subjective norm surrounding the performance (social influence), and (3) the amount of perceived behavioural control the person has over the conduct in question (issues of control) (Ajzen, 2005). Each of these variables, individually, can predict intentions and

behaviour up to a certain degree. Collectively, they provide a deeper understanding of a person's intentions (the most immediate determinant of an actual action) to perform or not to perform certain conduct. TPB suggests that when individuals evaluate behaviour positively, have adequate support and pressure from their surroundings to perform in that manner, and appreciate that they have the means and abilities to perform it, they are more determined to undertake that action.

Attitude towards behaviour is a significant predictor of an individual's intent to perform a proposed action. Attitude is defined as a person's frame of mind when they "respond favourably or unfavourably to an object, person, institution, or event" (Ajzen, 2005, p. 3) and can have a pervasive influence on an individual's goals and behaviour. In the context of this study, it is postulated that teachers' objectives of including students with disabilities might be influenced by their attitudes towards inclusion.

Within the TPB model, the next predictor variable is Perceived Behavioural Control (PBC) which is connected with locus of control (Rotter, 1966) and the construct of self-efficacy (Bandura, 1997). Ajzen (2005) argues that the idea of self-efficacy is closely related to the concept of PBC. Like other TPB variables, perceived behavioural control can influence the prediction of intentions and corresponding behaviour. In the current study, this variable has been conceptualised as teachers' perceived efficacy to implement inclusive practices in regular classrooms.

The other important determinant of aims and actions is subjective norms. This variable is concerned with an individual's perception of the engagement, or non-engagement, of other allied stakeholders, relevant to the behaviour the individual intends to perform. This variable can be measured by using a self-reporting instrument to judge a respondent's perception of having the approval or disapproval of associated

others when performing a given behaviour (Ajzen, 2005). In the current study,

subjective norms are represented as teachers' perceptions of having support from the

school community, including material and human resources. Other mediating factors

that might influence attitudes and teacher efficacy variables, as well as the teachers'

intentions, are individual background features such as age, gender, education, past

experiences, teacher training, and contact with students with a disability. To identify the

impact of these dynamics, the theorist suggests controlling the influence of TPB

variables while measuring the variance.

Intention has been regarded as the key indicator of a person's readiness for an

actual action (Sheeran, 2002). Studies show that intentions are proximal antecedents of

an action (Armitage & Conner, 2001; Conner & Sparks, 2005). Intention to perform a

behaviour is the behavioural disposition, "until an attempt is made to translate the

intention into action" (Ajzen, 2005, p. 101). Intention to perform behaviour has a much

greater power to predict an actual behaviour than any of the TPB variables (attitudes,

subjective norms, and PBC). Sheeran (2002) anticipated that present designs remain the

key psychological predictor of individual's behaviour. The intention- behaviour relation

is usually substantial, as argued by Ajzen (1985; 1991; 2005), even though low

correlations might sometimes occur. In a meta-analysis across studies, Sheeran (2002)

found that the overall correlation between intent and actual behaviour was 0.53. The

model indicates that TPB variables most closely ally with intentions, with intention

itself proximal to actual behaviour.

However, intentions and actual performance might be inconsistent if there is a

long intermission between the estimation of intent and observation of the deed. A lack

of opportunities and resources to conduct the act might disrupt the intention-behaviour

relation as well. It has been argued that if an individual has the "required opportunities

and resources" and positive objective to undertake an action, it might occur (Ajzen, 2005, p. 107). Therefore, TPB suggests that people intend to perform certain behaviours if their personal evaluations of the activity in question are positive, if they sense positive social pressure and support from the surroundings, and have confidence in their ability to achieve the desired behaviour.

A study by Hankins, French, and Horne (2000) suggests that regression analysis or structural equation analyses can measure the predictive utility of these three predictors collectively, as well as their individual contributions. It is usual that all three factors should make significant contributions to the predictions, even though their relative importance might vary from one intention to another (Ajzen, 2005; Armitage & Conner, 2001). This theory has the credentials of being used in cross-cultural and Western or non-Western contexts (e.g., Kasprzyk & Montaño, 2007). Fishbein and Ajzen (2010) argue that:

> The differences we can expect to find have to do with the contents of people's beliefs, and with the weights they place on attitudinal, normative, and control considerations, not with the processes whereby beliefs are formed, the ways in which these beliefs influence attitudes, perceived norms, and perceived control, or the processes whereby these factors guide intentions and behavior. (p. 308)

This aspect has had an impact on the confidence of global researchers applying the TPB framework, irrespective of whether in Western or non-Western contexts.

Drawing on the abovementioned theoretical framework, a model of the possible influences on teachers' bids to include students with disabilities in their classrooms was formulated for this study (see Figure 3). This model was used to examine how teachers' attitudes, teacher efficacy and perceived school support influence teachers' inclusionary intentions towards students with disabilities, in regular primary schools in Bangladesh.
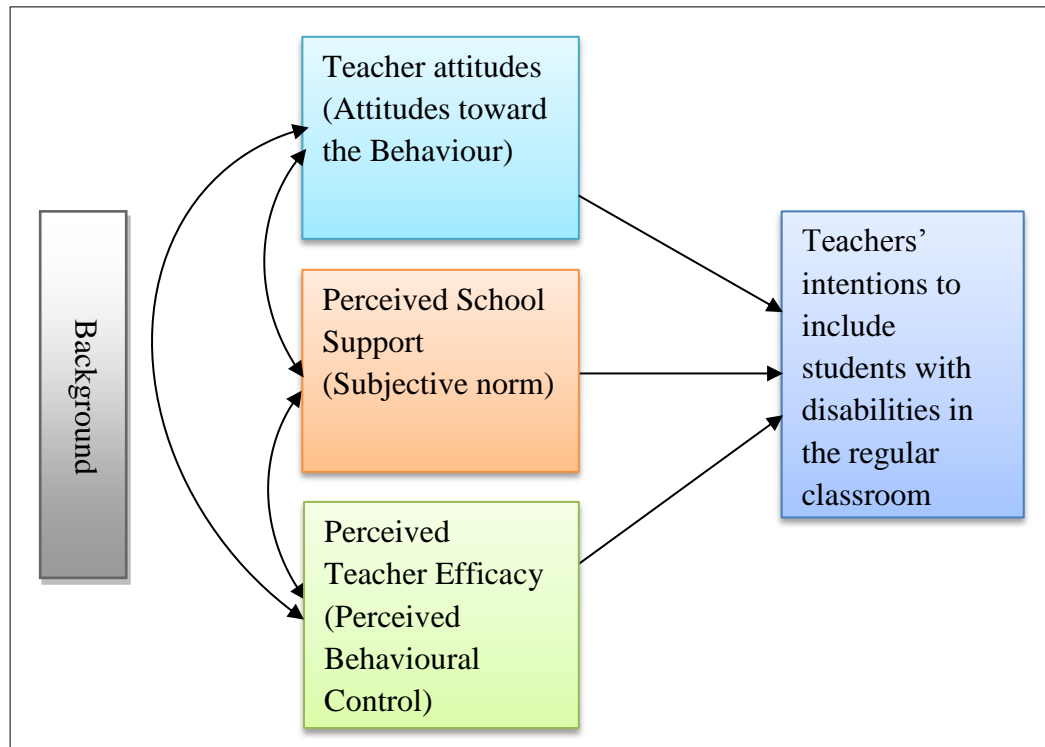
Figure 3. Application of the TPB framework showing the interactions among the study's variables.

TPB did more than allow the conceptualisation of the variables and their relationships with each other. It also mapped the formulation and application of the research questions and the combination of the findings, and acted as an organising structure for the research design of the study.

Chapter 2

Literature Review

This chapter presents a critical review of literature pertinent to the three key variables investigated in this thesis:

- Teacher attitudes towards inclusion of students with disabilities in regular classroom,

- Teacher efficacy to implement inclusive practices, and

- Perceived school support for implementing IE.

Three papers (Papers 1, 2 and 3) have been produced from this study, each of which focuses on one of the above variables. In three distinct sections, this chapter critically reviews the most significant previous studies[2] investigating the application of these variables, their determinants, and whether each of these variables impact on the enactment of IE (particularly with regard to the inclusion of students with disabilities). A detailed discussion of each of the stated variables and related research occurs in the included papers. These are presented in the chapters to which they have specific relevance.

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[2] With the objective of maximising and building the argument with the empirical evidence, discourses, and knowledge around these key variables, publications were carefully and systematically searched, using a number of databases, the results of which inform both this chapter and the included papers. Details of the search and selection procedures have been attached in the appendices (see Appendix G).

Teacher Attitudes Towards Inclusion of Students with Disabilities

Since teachers are key to implementing IE practices (Forlin & Chambers, 2011), their attitudes are considered an important factor of IE enactment. IE is not simply the placement of all children into regular classrooms, it also aims to ensure the provision of high quality education for all learners (UNESCO, 2009b). International studies (e.g., de Boer et al., 2011; Jordan, Schwartz, & McGhie-Richmond, 2009) demonstrate that teacher attitude towards IE is an important indicator of the success of IE implementation. The importance of this variable in the domain of IE has arisen as a consequence of extensive research through various international studies investigating the progress of instituting IE, particularly in developed countries. In Bangladesh, the inclusion in regular schools of all children, irrespective of their individual differences, to achieve EFA and MDG goals, is a priority in primary education (DPE, 2011a). The research literature indicates it is especially important to understand this variable to ascertain quality education for all and so this study has undertaken an investigation of teachers' attitudes in Bangladesh.

This section of the literature review focuses on how this construct has been defined, how past studies evaluated the importance of teacher attitudes in relation to the development and implementation of IE, the determinants of this variable and its relationships with other variables, with regard to IE enactment.

Brief overview of the attitudes construct.

Within the vocabulary of social psychology, attitude has been defined as "an individual's viewpoint or disposition towards a particular 'object' (a person, a thing, an idea, etc.)" (Gall, Borg, & Gall, 1996, p. 273). This construct can be embodied in a

trilogy of related components- *cognitive, affective,* and *conative* (Eagly & Chaiken, 1993; Hilgard, 1980). The cognitive component refers to "perceptions of, and thoughts about, the attitude object", while "feelings toward the attitude object" denotes the affective element and "behavioural inclination", and "actions with respect to the attitude object" are the conative components (Ajzen, 2005, p. 5). Ajzen also observes that, although an individual's outlook could not be accessed through direct observation, it could be explained from measurable verbal or nonverbal responses (2005).

Association between attitudes and human behaviour has long been established: attitudes affect human behaviour and behavioural practices may, conversely, impact on attitude (Bandura, 1997). In the view of Ajzen and Fishbein (2000, p. 6), "attitude was viewed as a stable disposition to respond in a consistently favourable or unfavourable manner to a psychological object". Other studies (e.g., Sharma, 2012), however, demonstrate that attitudes may be changed by appropriate activities. For example, suitable training in IE may have a positive impact in changing teachers' attitudes towards implementation of IE (Forlin, 2010; Lifshitz, Glaubman, & Issawi, 2004; Sari, 2007). If teachers' attitudes towards inclusion of students with disabilities are conceptualised within the TPB (Ajzen, 1991), it can be assumed that teachers' attitudes might impact on their behavioural intentions to include such students in their classes and, at the same time, may be shown to be associated with perceived teacher efficacy (perceived behavioural control) and perceived school support (subjective norms).[3] In the light of contemporary studies and arguments, the following section evaluates the position in teachers' attitudes towards inclusion of students with disabilities.

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[3] See Theoretical Framework in Chapter 1 for details

Teachers' attitudes towards IE.

In order to achieve successful implementation of IE in mainstream schools, the role of teachers is unquestionably crucial (Forlin & Lian 2008; Hsieh et al., 2012; Meijer, 2003). Because of the effect of teachers' attitudes on their behaviour (Jordan et al., 2009) and, thus, on the roles they play, attitudes are an important dynamic in the inclusion of students with special needs in regular education (de Boer, 2012). This has stimulated a number of studies seeking a better understanding of the status of teachers' attitude towards inclusive education (e.g., Avramidis & Norwich, 2002; Marshall, Ralph, & Palmer, 2002; Ring & Travers, 2005). While some studies found that teachers' attitudes towards inclusion is positive (Ahsan, Sharma, & Deppeler, 2012; Avramidis, Bayliss, & Burden, 2000), there were other studies that found teacher attitudes to be either negative or neutral (Batsiou, Bebetos, Panteli & Antoniou, 2008; de Boer et al., 2011; Parasuram, 2006). Irrespective of the status, the value of teachers having a positive attitude towards implementing IE is an extremely important issue mentioned in many studies (e.g., David & Kuyini, 2012; Forlin Loreman, Sharma, & Earle, 2009; Kalyva, Gojkovic, & Tsakiris, 2007).

The manner in which teachers respond to IE policy has a flow-on effect to the degree and type of effort they engage in to implement it (Avramidis & Norwich, 2002). IE reform is a relatively new phenomenon in developing nations (Singh & Ghai, 2009). With the growth of IE reform in these regions, teachers in regular schools are now facing greater numbers of students with diverse needs in their classrooms than previously (Savolainen et al., 2012). Changing any classroom experiences can impact upon teachers' attitudes, and this is no less the case with changes occurring with the introduction of inclusive education (Labone, 2004). In order to develop and sustain an inclusive teaching culture in regular schools in developing countries, teachers need to

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have positive attitudes towards the new culture. Western countries, on the other hand, have been practicing IE in regular schools for over four decades (Ferguson, 2008) now and teachers have, therefore, become conversant with this approach. Concurrent with the establishment of IE in the West, a significant number of international studies have undertaken examinations of and about teacher attitudes, to understand the progress and challenges of IE implementation (e.g., Jerlinder, Danermark, & Gill, 2010; Killoran, Woronko & Zaretsky, 2013; Rakap & Kaczmarek, 2010). Some studies in both developed and developing countries have indicated that regular school teachers are not sufficiently prepared to address the needs of students with disabilities in regular classrooms (Das, Gichuru & Singh, 2013; Edmunds, 2003; Mukhopadhyay, 2012). This can lead to teachers' attitudes towards inclusion becoming enmeshed in concerns about how to practically execute IE (Burke & Sutherland, 2004). Without teachers' positive, accepting and supportive attitudes towards inclusion, it is unrealistic to anticipate success in the incorporation of IE at the classroom level (e.g., Cook, 2002; Hastings & Oakford, 2003; Kalyva et al., 2007; Kim, 2011), since the teacher is the primary stakeholder who not only works most closely with students in the classroom but is the medium of delivery of IE (Burke & Sutherland, 2004). A number of studies (e.g., Evans & Lunt, 2002; Scanlon & Barnes-Holmes, 2013) have extended this further and argued that, not only does successful IE require positive attitudes from teachers but, without this positivity, successful implementation may be jeopardised: the lack of a positive attitude has an adverse impact upon teachers' interactions with pupils with special needs, in mainstream classrooms. The magnitude of the importance of positive teacher attitudes has been further reflected in an argument of Savolainen et al. (2012) which shows that the learning outcomes of students in an inclusive classroom largely depend on the ways teachers respond to the inclusion principles. Thus, teacher attitude has come to be regarded as an indicator of the progress and success of Inclusive Education

implementation over the decades (Bailey, 2004). The significance of evaluating teachers' attitudes with regard to implementing IE in the regular classroom in the era of IE reform can be read in the philosophical comments of Fullan (1982):

> Education change depends on what teachers do and think–it as simple and complex as that. . . . If educational change is to happen it will require that teachers understand themselves and be understood by others. (p. 107)

It has been argued that, as the masterminds and key instruments of classroom teaching, teachers need to perform various roles in an inclusive classroom (LePage et al., 2010; Mckenzie, 2010; Sharma, 2009; Sokal, 2012). Indeed, executing IE requires teachers to have "additional skills and strategies that are generally not practiced in regular education classrooms" (Das et al., 2013, p. 2). To perform their roles and meet their responsibilities, they require skills and knowledge that enable them to: make observations and keep records; work and communicate effectively with parents and others stakeholders; perform planning and administrative tasks; undertake analysis; and motivate, assist and encourage students. All of this is in addition to their basic teaching requirements. Therefore, it is not difficult to understand that, if teachers have negative attitudes towards inclusion, the progress of instituting IE could be seriously hindered (Avramidis & Norwich, 2002; Soodak, Podell, & Lehman, 1998). Given the primacy of teachers in IE implementation (Seçer, 2010), it is also easy to see why teacher attitudes have been of unprecedented interest to global researchers (e.g., de Boer, 2012; Wilczenski, 1995) seeking to understand the evolution of inclusive education (Avramidis & Norwich, 2002; Carrington, 2000; Fives & Buehl, 2008). Since teacher attitude is regarded as such a significant ingredient in the IE procedure, international studies have been undertaken to investigate the variables associated with teachers' attitudes towards IE (e.g., de Boer et al., 2011; Avramidis & Kalyva, 2007).

Variables associated with teachers' attitudes.

Conceptualising teacher attitudes within the framework of TPB (Ajzen, 1991) suggests that teacher attitudes towards inclusion, teacher efficacy to implement inclusive practices, and perceived school support have a connection with each other, at the same time as each of them individually influences the outcome variable of teachers' behavioural intentions (to include students with disabilities in regular classrooms). Additionally, demographic variables of the teachers, e.g., experience in inclusive education, contact with a person with a disability, are suggested as influencing their attitudes towards inclusion (de Boer et al., 2011). The following section discusses the relationship between teacher attitudes and the variables of teacher efficacy, perceived school support, and demographic factors.

Teaching efficacy and teacher attitudes.

While there is an abundance of research on teacher attitudes towards inclusive education, there are few studies on teacher self-efficacy focused on inclusive education (Malinen, Savolainen, & Xu, 2012). This is particularly apparent in non-Western countries where the number of studies with a major focus on teacher self-efficacy for inclusive education is very limited (Sharma et al., 2012), despite there being ample research on teacher self-efficacy in Western countries. Studies of self-efficacy for inclusive education indicated that the attitudes of teachers towards inclusion are related to their efficacy in implementing inclusive teaching practices (Malinen, Savolainen, & Xu, 2012). Most of the research on teacher attitudes indicates that many general education teachers theoretically support inclusion, but have concerns about their inherent ability to embark on this approach successfully in their own classrooms (Buell, Hallam, Gamel-McCormick, & Scheer, 1999; Van Reusen, Shoho, & Barker, 2000). It has been found that teachers' attitudes vary in accordance with their perceptions of the

intensity of students' learning needs (Avramidis & Kalyva, 2007), their beliefs about the demands of students' instructional and management needs (Soodak et al., 1998) and the severity of the students' disabilities (Scruggs & Mastropieri, 1996). Hence, it has been argued that the relationship between teachers' attitudes towards inclusion and IE practices might be juxtaposed with teachers' felt sense of capability (Labone, 2004; Soto & Goetz, 1998).

The body of available research shows that a teacher's sense of efficacy is a strong arbitrating factor in predicting their classroom performance and also their students' successful learning (Tschannen-Moran & Hoy, 2001). A recent study reported that a significant positive correlation was found between teaching efficacy and attitudes towards inclusion (O'Toole & Burke, 2013) which signifies that the teachers who had more confidence in overcoming the barriers to implementing inclusive practices held more positive attitudes towards inclusion. A number of studies (e.g., Malinen et al., 2012; Meijer & Foster, 1988; Soodak et al., 1998; Weisel & Dror, 2006) also suggest that there is significant association between teachers' sense of efficacy and attitudes towards inclusion, where higher levels of self-efficacy determined more positive attitudes. Savolainen et al. (2012) narrowed this further with their findings that teachers' belief of self-efficacy in collaboration was positively associated with their attitudes towards inclusive education. Following Soodak et al. (1998), who found that teachers' sense of teaching efficacy was a major predictor of their attitudes towards inclusion, Weisel and Dror (2006) reported that teachers' sense of self-efficacy was one of the strongest predictors of their attitudes towards inclusion. Similarly, Sharma, Moore and Sonawane (2009) found that teachers' confidence in teaching in inclusive classrooms was a crucial influence on their attitudes towards inclusion of a student with a disability. However, there are also studies that did not find any significant relationship between

teachers' perceived self-efficacy and attitudes towards inclusion (e.g., Engstrand &

Roll-Pettersson, 2012).

Perceived school support and teacher attitudes.

The availability of support and resources has been consistently found to be

related to positive attitudes of the teachers towards inclusion (Ainscow, Dyson,

Goldrick, & West, 2012; Brown, Packer, & Passmore, 2013). Studies have found that

lack of support and resources might, indeed, challenge the progress of IE

implementation (Mangope, Kuyini, & Major, 2012) by increasing concerns among the

teachers while enacting IE (Blecker & Boakes, 2010). Equally, if teachers thought they

had the required support and resources, this translated to positive attitudes towards

inclusion (Lambe & Bones, 2006; Wilkins & Nietfeld, 2004). Scanlon and Barnes-

Holmes, similarly, caution that inadequate support "may reduce opportunities for

positive interactions [with students with disabilities] and increase the possibility of

negative interactions" (2013, p.4).

Adequacy of support is a global issue. In a study in Botswana, teachers showed

their concern about inadequate teaching and human resources to support the

implementation of inclusive practices (Chhabra, Srivastava & Srivastava, 2010).

Another study on the other side of the world, in Ireland, found that teachers are positive

towards the principle of inclusion even though they perceived constraints and

inadequacies of training, resources, supports, and collaboration (Shevlin et al., 2012).

Das et al. (2013) reported that the majority of developing countries, such as India, do

not have sufficient appropriately trained teachers or assurances of ongoing support and

resources to implement IE successfully.

Following Ajzen (2005), it has been argued that teachers' willingness to include and teach students with special needs might be associated with teachers' assessment of the degree of social support received from others (Ojok & Wormnæs, 2012). Sustaining this idea, numerous international studies indicate that teachers' attitudes towards inclusion of students with disabilities in regular classes may be influenced by teachers' perception of the support they receive from the school community, which includes the school Principal, colleagues, parents, and professional staff (teacher aides, special needs coordinator) (e.g., Gaad & Khan, 2007; Horne & Timmons, 2009; Scanlon and Barnes-Holmes, 2013). Hornby (2010) also reported that parental involvement and support is an important factor for effective implementation of inclusive practice.

Support in the form of instructional and material resources can be valuable to teachers when implementing IE (Coskun, Tosun, & Macaroglu, 2009) in addition to human resources and affiliated requirements. Vaughn, Schumm, Jallad, Slusher, and Saumell (1996) found that the majority of participating teachers were concerned about a lack of resources, training and support services for successful implementation of inclusive education and had strongly negative attitudes towards inclusion. Similarly, Rose (2001) found that perceptions among primary school teachers and head teachers about inadequacies of requisite support and facilities (e.g., support staff, professional training and physical facilities) results in concerns among the teachers while implementing IE.

It is evident that adequate cooperation from the school community, including Principal, colleagues, and parents, and resources, including teaching material and training, are important ingredients for successfully implementing IE in classroom practices, since perception of support can influence teachers' attitudes towards inclusion and behavioural intentions. Details of support and the relationships between support

and attitudes of teachers have been further discussed in Paper 1 entitled, 'Measuring Perceived School Support for Inclusive Education in Bangladesh: the development of a context specific scale' and Paper 2 entitled, 'Variables affecting teachers' attitudes towards inclusive education in Bangladesh' (see Chapters 1 and 4 respectively).

Demographic variables and teacher attitudes.

Given the immense importance of this relational nexus, many studies have explored the impact of demographic variables on teacher attitudes towards inclusion. A number of these studies (e.g., Avramidis & Norwich, 2002; de Boer et al., 2011) have found that teachers' attitudes may be influenced by background variables and conditions of the teachers. The key background variables found to be significant predictors of teachers' attitudes towards inclusive education are teachers' participation in professional development courses (Seçer, 2010), gender (Alghazo & Naggar Gaad, 2004), and previous contact with a person with disability (Loreman et al., 2007). These major demographic variables that potentially influence teachers' attitudes towards inclusion are outlined below.

Gender.

Many studies have examined the effect of the gender of teachers on their attitudes towards inclusion (e.g., Avramidis & Norwich, 2002; de Boer et al., 2011) but the findings are inconclusive. While some studies found that attitudes of male teachers rated higher - more positively towards inclusion - than those of female teachers (e.g., Ellins & Porter 2005; Opdal, Wormnæs, & Habayeb, 2001; Rakap & Kaczmarek, 2010), several other studies found the female teachers' attitudes rated higher than male's (e.g., Alghazo & Naggar Gaad, 2004; Yan & Sin, 2013). Fakolade, Adeniyi, and Tela's (2009) study in Nigeria found that female teachers had a more positive attitude

toward inclusion and were more enthusiastic about improving their teaching efficacy in inclusive classrooms than their male colleagues. This study explained the findings thus: "females naturally have good tolerance compared to male" (p. 165). However, many other studies did not find gender to be a significant determinant of teachers' attitudes (e.g., Avramidis & Kalyva, 2007; Haq & Mundia, 2012; Parasuram, 2006).

Age.

Several studies examined the influence of age of the teachers on their attitudes towards inclusion. Some studies indicated that younger teachers hold more positive attitudes towards inclusion than their older colleagues (Avramidis & Norwich, 2002; Cornoldi, Terreni, Scruggs, & Mastropieri,1998; Yan & Sin, 2013).On the other hand, a number of studies (e.g., Parasuram, 2006; Rakap & Kaczmarek, 2010) found that the youngest and the oldest teachers had the most positive attitudes toward inclusion. In many other studies age was not found as a significant predictor of teachers' attitudes (e.g., Chhabra et al., 2010; Forlin et al., 2009; Male, 2011; O'Toole & Burke, 2013).

Educational qualifications.

Current empirical studies into the impact of educational qualifications on teachers' attitudes towards inclusion of children with disabilities are inconclusive. Some reported that teachers with higher educational qualifications hold more positive attitudes towards IE than those with lower qualifications (e.g., Hsien, Brown, & Bortoli, 2009). For example, Sharma et al. (2009) found teachers with postgraduate qualifications were more positive toward implementing inclusive practices in their classrooms than teachers with an undergraduate degree or diploma. Paradoxically, there are studies which revealed that teachers with lower educational qualifications held more positive attitudes toward inclusion than did teachers with higher degrees (Forlin et al., 2009). Other

studies did not find any significant association between educational qualifications of the teachers and their attitudes towards inclusive education (e.g., Savolainen et al., 2012).

Years of teaching experience.

Duration of teaching has also been suggested as a significant demographic variable that influences teachers' attitudes. Past studies indicate a trend of negative correlations between teaching experience and teachers' attitudes towards inclusion, which means that teachers with less teaching experience are more likely to support inclusion than teachers with more years of teaching experience (e.g., Alghazo & Naggar Gaad, 2004; Cornoldi et al. 1998; Glaubman & Lifshitz, 2001). To explain this finding, the researchers (e.g., Brady & Woolfson, 2008) argued that teachers with more experience may have completed their initial teacher education prior to IE gaining impetus in regular schools and, therefore, did not have preconceptions of IE. However, Rakap and Kaczmarek (2010) found that teachers with the least and the most years of teaching experience were slightly more positive toward inclusion than those within the middle range of years of experience. There are studies which revealed that teachers who had much experience in teaching students with special needs or in inclusive education held significantly more positive attitudes towards inclusive education than colleagues with little or no experience teaching in inclusive education (Avramidis & Kalyva, 2007; Villa, Thousand, Meyers, & Nevin, 1996). On the other hand, many other studies did not find any influence of teaching experiences on teachers' attitudes (Avramidis et al., 2000; de Boer, Pijl, Post, & Minnaert, 2012; Kalyva et al., 2007).

Contact.

Existing empirical studies show mixed findings about the influence of the contact variable on teachers' attitudes. The majority of these studies examined the effect

of teachers' previous contact with a student with a disability on their attitudes towards inclusion of such students in regular classrooms and indicated that contact might have a positive influence on teachers' attitudes (e.g., Batsiou et al. 2008; Loreman et al., 2007; Parasuram, 2006). Studies (e.g., Carroll, Forlin, & Jobling, 2003; Yuker & Hurley, 1987) showed that personal or social contact with a person with a disability is likely to result in positive attitudes. Sharma, Forlin, Loreman and Earle (2006) indicated that previous contact with people with disabilities might reduce a fear of the unknown and any discomfort related to disability. This explanation was reflected in a recent study by Ojok and Wormnæs (2012). Conversely, there is also evidence suggesting contact with a person with disability could lead to negative attitudes towards inclusion (e.g., Bradshaw & Mundia, 2005) which could be explained "by the notion that personal experiences might lead to more realistic expectations and attitudes" (de Laat, Freriksen, & Vervloed, 2013, p. 861). One study suggested that positive contact experiences with a person with a disability might positively impact on acceptance and social inclusion and vice versa (Li & Wang, 2013). However, some studies did not find contact had any significant influence on teacher attitudes towards inclusion (e.g., de Boer et al., 2012; Hastings & Oakford, 2003). Therefore, whether and how contact with a student with a disability impacts on teacher attitudes towards inclusion remains inconclusive (Avramidis & Norwich, 2002).

Knowledge variables.

Many studies have examined the impact of teacher training and teachers' experiences of previous success in teaching students with disabilities on teachers' attitudes, however they have reported mixed findings.

Teacher training.

Training plays an important role in changing teachers' attitudes both towards people with a disability and towards inclusive education (Rose, Kaikkonen, & Koiv, 2007; Sharma, Forlin, & Loreman, 2008). Teachers may feel unprepared to implement IE if they are not trained or trained inadequately (Pijl, 2010; Sari, 2007). Many authors (e.g., Kurniawati, Minnaert, Mangunsong, Wondimu, 2012), therefore, emphasised the importance of training in IE. Past studies have reported positive impacts of teacher training in special education/inclusive education on teacher attitudes towards IE (e.g., Avramidis et al., 2000; de Boer, 2012; Koutrouba, Vamvakari, & Theodoropoulos 2008; Rae, Mckenzie, & Murray, 2011). On the basis of this literature and their findings that the attitudes towards inclusion of teachers in Botswana is negative, Chhabra et al. (2010) recommended the Botswana government improves teacher training in IE, with the expectation that training will significantly and positively enhance these attitudes. Even though de Boer et al. (2011) found that training positively influences teacher attitudes and willingness towards IE, they cautioned that "other mediating variables might influence this relationship" (p. 349). In contrast, Wilkins and Nietfeld (2004) did not find any significant influence of training on teacher attitudes.

Previous success in teaching student with disabilities.

Across existing studies, it has been consistently found that the majority of researchers claim teachers' experience of previous success in teaching students with disabilities positively influences their attitudes towards inclusion of these students (e.g., Avramidis et al., 2000; Campbell, Gilmore & Cuskelly, 2003; Cox & Washington, 2008; Kalyva et al., 2007; Sharma & Chow, 2008). Studies (e.g., Loreman et al., 2007) suggest providing teachers with opportunities to experience success in teaching in

inclusive classrooms, since such success might, in turn, contribute to improving teachers' confidence and future accomplishment.

Organisational variables.

School location.

Not many available studies examined the effect of differences in locations of schools on the attitudes of teachers towards inclusion. Among those which did, some found that teachers in rural areas were more positive than teachers in suburban locations (e.g., Jamieson, 1984). In contrast, other studies (e.g., Cornoldi et al., 1998; Mukhopadhyay, 2012) did not find any significant difference in the attitudes of the teachers in terms of school location.

Class size.

Teachers' attitudes towards inclusion and confidence in teaching in inclusive classrooms can be influenced by the size of the class (Anderson, Klassen, & Georgiou, 2007). Studies indicated that class size might be a determinant of teachers' felt capability to include students with special needs (Rose et al., 2007), with larger class sizes demanding extra work from the teachers (Subban & Sharma, 2005; Van Reusen et al., 2001) which might negatively influence teachers' attitudes towards inclusion (Soodak et al., 1998). Consequently, researchers (e.g., Agran, Alper, & Wehmeyer, 2002) considered larger classes to be a challenge for the teachers of regular schools while implementing inclusive education in their classroom practices. On the other hand, Cornoldi et al. (1998) found no significant impact of class size on teachers' attitudes towards inclusion.

Disability variables.

Types and severity of disabilities.

Among the studies that have examined the relationships between types and severity of disability and teachers' attitudes towards inclusion of students with disabilities, Forlin, Douglas, and Hattie (1996) found that teachers were more inclined to include students with physical disabilities than those with an intellectual disability. Reviewing a number of studies, de Boer et al. (2011, p. 247) concluded that teachers are more inclined to exhibit a negative response about the inclusion of students who have learning or cognitive disabilities and behaviour problems, whereas they indicate more positivity about the inclusion of students with physical and sensory disabilities. Similarly, Avramidis and Norwich (2002, p. 142) found that teachers are more positive towards inclusion of students with "mild disabilities, physical/sensory impairments". They further suggest that students with more behavioural difficulties and those with serious learning needs tend to generate negative reactions in teachers regarding the implementation of inclusion. It has also been put forward that teachers' attitudes towards inclusion were correlated with the severity of disability: as the severity of disability increased, teacher disposition towards inclusion decreased significantly (Koutrouba, Vamvakari, & Steliou, 2006). Studies (e.g., de Boer et al., 2011) found there were differences in teachers' attitudes according to type of disability but did not offer an explanation of the reasons behind these attitudes.

Summary.

This section of the literature review has focused on the attitudes of teachers towards inclusion. Research has shown that teachers' attitudes towards inclusion, correlated with effective introduction of inclusion processes, are an important indicator by which to determine and predict the success of implementing inclusive practices in

the classroom level. It has also been discerned that teachers' attitudes towards inclusion may be neutral, negative or positive.

The review identified variables that might impact on teacher attitudes towards inclusion. The major variables that seem to be associated with teachers' attitudes towards inclusion are: age, gender, contact with a student with a disability, past success in teaching student with a disability, educational qualification, and teacher training in IE. The literature has also emphasised that teachers' attitudes may be linked with teaching efficacy and teachers' perception of school support. It is essential that current and future research considers all of the above issues and conditions when measuring this vital construct.

It is also important to note that a majority of the published studies have been conducted in Western countries, where IE has been practised over several decades. Countries comparatively new to incorporating IE policies in mainstream education systems, such as Bangladesh, do not have sufficient empirical studies that focus on teacher attitudes. Therefore, in light of the link between teacher attitudes and successful implementation of IE, as displayed in the reviewed literature above, it is critical to examine this construct in the context of Bangladesh. This is required to determine the success of, and barriers to, inclusive education practices in a developing country like Bangladesh, with its recently-introduced inclusive education policy initiatives.

Teacher Efficacy to Implement Inclusive Practices in Regular Classrooms

Teacher efficacy to implement inclusive practices is another important variable in this study. In this study, this particular variable has been conceptualised within the TPB framework, with the view that teacher efficacy influences teachers' behavioural

intentions and their actual behaviour with regard to including students with disabilities. There are indications that teacher efficacy can be paired with the perceived behavioural control (PBC) of TPB (Ajzen, 1991, 2002; Armitage, Conner, Loach, & Willets, 1999; Fishbein & Cappella, 2006; MacFarlane & Woolfson, 2013). It is worth mentioning that the similarity and proximity of teacher efficacy to PBC has already been empirically established in academia (e.g., Stanovich & Jordan, 1998).

One way to determine whether teachers are prepared to undertake inclusive practices in their regular classes is to examine their teacher efficacy to implement such practices (Sharma et al., 2012). Indeed, there has been an increasing trend among researchers in the field to investigate the functional side of teaching by measuring this construct (Savolainen et al., 2012). It is recognised that teachers' self-perceptions of inability to teach have a negative effect on the context of their teaching (Sutherland, Lewis-Palmer, & Morgan, 2008). Despite this variable's applicability and usefulness in understanding the success of IE practices, and the increasing attention of Western researchers to this variable as a research domain, there are very few studies focusing on it in South Asian countries such as Bangladesh. It is evident that teachers' willingness to include students with different abilities and their discernible confidence to work with them determines the success of inclusion (Friend & Bursuck, 2009; Leyser, Zeiger & Romi, 2011). Given the classroom situation in Bangladesh and the international discourses on teacher efficacy, this study, therefore, included teacher efficacy as a significant variable to be examined. The following discussion is embedded in the contemporary arguments and empirical studies around teacher efficacy. It focuses on the different aspects of teacher efficacy to implement IE practices, including an overview of this variable and the factors influencing it.

Overview of the teacher efficacy construct.

It has been argued that, within the lens of social cognitive theory, the teaching milieu reflects teachers' self-efficacy beliefs (Knoblaucha & Hoy, 2008). Teacher competency beliefs can certainly interpret teachers' choice, strength and determination to perform a task and, finally, forecast the possible outcomes (Bandura, 1977, 1986, 1997). The inherent characteristic of the teacher efficacy construct implies that teachers with higher teaching efficacy beliefs can be anticipated to continue their efforts, even in a difficult situation, by adapting existing strategies (Bandura, 1986, 1997; Gibson & Dembo, 1994). By doing this, they can manage and teach struggling students effectively. This construct is context-specific (Bandura, 1997; Knoblaucha & Hoy, 2008) and displays a commonality between efficacy and situation. Hence, a teacher with greater capability is inherently innovative and equally able to fulfil the individual needs of the students and the demands of the situation.

Reflecting on its origin, it is evident that the teacher efficacy construct has been grounded largely within Rotter's (1966) Locus of Control and Social Learning Theory and Bandura's (1977, 1986) Social Cognitive Theory with its construct of self-efficacy. This historical positioning of teacher efficacy has been mentioned by many authors (e.g., Labone, 2004). It has been postulated that teacher efficacy, as based on the conceptual frameworks of Rotter's (1966) social learning theory, was first noticed by RAND researchers (Tschannen-Moran, Woolfolk Hoy, & Hoy, 1998). In his theory, Rotter defined teacher efficacy as teachers' beliefs that their teaching results are influenced more strongly by factors under the teachers' control than by environmental factors that are outside their control (Tschannen-Moran et al., 1998). Over the years, the majority of research by social scientists, educational psychologists and researchers around the teacher efficacy construct grew out of the framework of self-efficacy beliefs of

Bandura's (1977) social cognitive theory (Ho & Hau, 2004). Amongst this work, a number of researchers (e.g., Gibson & Dembo, 1984; Tschannen-Moran et al., 1998) have applied this concept of self-efficacy within the context of the act of teaching, defining the teacher efficacy construct as the potential, as perceived by a teacher, of his/her own capabilities to teach students. Consequently, a number of tools have been developed to understand and measure the construct. For example, based on Rotter's (1966) Locus of Control and Bandura's concepts of self-efficacy and operating on the premise that teacher efficacy involved both personal teaching efficacy and general teaching efficacy, Gibson and Dembo (1984) developed a scale for measuring teacher efficacy, the Teacher Efficacy Scale (TES) (Tschannen-Moran et al., 1998), that Woolfolk and Hoy (1990) later revised. Regarding teacher efficacy assessments, Tschannen-Moran et al. (1998) have suggested that "a valid measure of teacher efficacy must assess both personal competence and an analysis of the task in terms of the resources and constraints in particular teaching contexts" (p. 295).

In recent years, the importance of this teacher efficacy variable has drawn the attention of educational researchers towards examining its significance in relation to accomplishing inclusive education. Utilising Bandura's (1997) concept of self-efficacy, Sharma et al. (2012) examined teacher efficacy in the context of inclusive education. They based their research on the principles that teachers with high levels of teaching efficacy are inclined to believe that students with diverse needs can be taught effectively in regular, inclusive classrooms and vice versa. To do this, they developed the Teacher Efficacy for Inclusive Practice (TEIP) Scale that measures perceived teacher efficacy to teach in inclusive classrooms.

In the dictum of social cognitive theory, Bandura (1997) mentions four major sources of self-efficacy belief: (1) Performance accomplishments (Mastery experience),

(2) Vicarious experience, (3) Verbal persuasion, and (4) Emotional arousal. Among these, *performance accomplishment* has been considered the most significant, since it is founded on the personal proficiency (mastery) experiences of an individual. This suggests that repeated success promotes proficiency expectations but repeated failures lower them. *Vicarious experience* means that seeing others succeeding may increase our own self-efficacy, *Verbal persuasion* is when encouragement or discouragement from others may influence our self-efficacy beliefs and *Emotional arousal*, the fourth source of self-efficacy, implies that an individual's personal competency may be affected by their perception of a stressful situation.

Applying this concept in the context of teaching, Tschannen-Moran and Johnson (2011) found that the most powerful source of efficacy-related information for teachers is mastery experiences, in other words actual teaching accomplishments with students. Mulholland and Wallace (2001) also argued, previously, that the strongest influence on the development of teachers' sense of capability is mastery experiences during student teaching. In the opinion of Tschannen-Moran et al. (1998), teacher efficacy can have a cyclic effect whereby teaching practices undertaken with high levels of effort and diligence are influenced by the individual teachers' sense of competence and, when successfully accomplished, the experience itself converts into a source of future success. This reinforces what Bandura (1997) termed 'Mastery', as a source of self-efficacy belief.

Teacher success has been comprehensively and broadly interpreted in the academic world. Based on the philosophical notions of Pajares (1996, p. 544), self-efficacy can be understood as determining whether or not teachers engage in tasks, depending on how competent and confident they feel they are to perform them. Berman McLaughlin, Bass, Pauly, and Zellman (1977, p. 137) identified teacher efficacy as how

much capacity teachers believe they have "to affect student performance". Tschannen-Moran et al. (1998, p. 233) advanced this idea, defining teacher efficacy as "the teacher's belief in his or her capability to organise and execute courses of action required to successfully accomplish a specific teaching task in a particular context". They suggest that higher teacher confidence points to higher endeavour and persistence, which leads to better performance, consequently translating to greater output.

Teacher efficacy and implementation of inclusive education in the regular classroom.

Studies have shown that teacher efficacy can predict the success of a teacher in implementing IE in his/her classroom (e.g., Sharma et al., 2012). Given this, and paralleling recent global inclusive education policy moves, empirical studies around teacher self-efficacy with regard to IE have increased (Malinen et al., 2012), as teachers in today's classrooms face "ongoing challenges to keeping self-efficacy high" (Scanlon & Barnes-Holmes, 2013. p. 17-18). Ghaith and Shaaban (1999) established that "more efficacious teachers are more likely to take charge of their own growth and to resolve their problems" (p. 488) and, when reviewing contemporary studies, Duffin, French, and Patrick (2012, p. 828) also found that when teachers' confidence for teaching is high, teachers are inclined to employ "a variety of instructional strategies that are autonomy-supportive and positive for student engagement and achievement outcomes, even when faced with challenging situations".

Teacher efficacy provides understanding as to whether a teacher is willing to teach students experiencing difficulties in regular classrooms under IE, or would rather refer them to special education (Tschannen-Moran et al., 1998), since teachers with higher confidence in teaching students with special needs are more willing to include such students in their classroom than those teachers who doubt their ability to teach

them (Ashton & Webb, 1986). In a similar vein, Soodak et al. (1998) found that teachers' decisions whether to include students with special needs in ordinary classes or to refer them to special schools is connected to teacher capability: those with lower efficacy tend to reject inclusion. This is supported by Jordan et al. (2009) who argued that teachers' views about including students with special education needs in their classrooms and the status of teacher effectiveness are interrelated. Teachers with higher efficacy are found to be more welcoming towards students with special needs and are confident in providing necessary support, whereas teachers' lower competence correlates with negative views about teaching those students (e.g., Brownell & Pajares, 1999; Sharma et al., 2012; Woolfolk & Hoy, 1990). Research also reveals that teachers with a high sense of success are more willing to provide extra support to and work longer with students who experience difficulties in learning (Gibson & Dembo, 1984) and are more likely to receive mainstream education placements to teach students with special needs (Tournaki & Podell, 2005).

From these and other contemporary studies, Sharma and colleagues surmise that "high teacher efficacy can be viewed as a key ingredient to [creating] successful inclusive classroom environments" (Sharma et al. 2012, p.13). This argument is congruent with the viewpoint of Cheung (2008) that teacher effectiveness might influence a teacher's level of aspiration and persistence when encountering difficulties while teaching, such as those experienced during the introduction of IE. It is established that teachers need, more than ever, to address individual learning needs of students while administering inclusive teaching practices. Because teacher efficacy shapes how teachers manage their teaching, how they behave in the classroom and how much effort they invest in teaching the students (Martin, Sass, & Schmitt, 2012, Leyser et al., 2011), it can be expected that teachers with high perceived efficacy will confidently perform the roles and responsibilities required in order to teach students with special needs in

regular schools (Sharma et al., 2012). However, teachers with a low self - efficacy level are likely to do the opposite and impede the achievement of such goals (Taylor & MacKenney, 2008).

Some researchers looked at teacher efficacy from a broader perspective and saw the associations of this construct with teachers' behaviours and attitudes, student achievement, and school structure and climate (Gibson & Dembo, 1984; Tschannen-Moran et al., 1998). From this, the link between a high sense of teacher efficacy and teachers' positive attitudes towards inclusion became apparent (Soodak & Podell, 1997). To further understand these important relationships, a number of studies proceeded to investigate the predictors of teacher efficacy, with the aim to facilitate inclusive practices. The following section reports on identified predictors of teacher efficacy to implement IE practices.

Teacher efficacy and background variables.

From the available literature on teacher efficacy and IE, the following variables are understood to exert influence on teacher efficacy.

Perceived school support.

Teachers' perception of the level of school support can impact on teacher's perceived efficacy (Butler & Shevlin, 2001). Teachers may lose confidence in difficult situations in IE classrooms if they fail to receive support when needed (Griffin & Shevlin, 2007). Further, Hoy (2000) has mentioned that support is important in protecting teachers' efficacy beliefs. When teachers receive adequate support, teacher efficacy rates positively, but this rate falls if the support is reduced or withdrawn. Making sure teachers feel supported increases their "sense of teacher efficacy and make[s] for greater effort, persistence, and resilience" (Tschannen-Moran et al., 1998, p.

239). Gebbie, Ceglowski, Taylor and Miels, (2012) also noticed teachers' efficacy can be increased through training, practice and provision of social support. In another study, teaching resources were found to be salient to teacher effectiveness (Tschannen-Moran & Hoy, 2007). However, these studies showed that, very often, the desired support has been reported to be inadequate (Scanlon & McGilloway, 2006). The major studies into support (e.g., Coskun et al., 2009; Eloff & Kgwete, 2007) suggest areas the teachers perceived as important for implementing IE were human and material resources and cooperation from the school community. It can be seen, then, that teachers' perception of the availability of support and resources for implementing IE may impact on their perceived teaching efficacy. This is consistent with the conceptual framework of the current study (the TPB model) that also supports there being a practical and valuable association between perceived teacher efficacy (perceived behavioural control) and perceived school support for inclusive practices (subjective norms).

Demographic variables.

Since the construct of teacher efficacy has drawn the attention of global researchers only recently, the number of studies investigating the influence of demographic variables of the teachers on their teaching efficacy beliefs, with regard to implementing inclusive education, is limited. Based on the available studies, the following key background variables have been found to be significant predictors of teacher efficacy:

Age.

Despite a lack of research that examined the influence of the age of teachers on their teaching efficacy with regard to inclusive education, it is a factor that has been thought worthy of investigation by some. Of those, Hicks' (2012) study found that there is no relationship between a teacher's level of self-efficacy and the age of the teacher.

Another study also found that age was not a significant predictor of teacher efficacy to implement inclusive education (Ahsan et al., 2012). However, Viel-Ruma, Houchins, Jolivette, and Benson (2010) found that older teachers had higher levels of efficacy than younger teachers.

Gender.

Since teacher efficacy is a new domain in inclusive education, few empirical studies have examined the relationship between teacher efficacy and the gender of teachers (Pas, Bradshaw, & Hershfeldt, 2012). Amongst them, a number of studies found that female teachers had higher levels of effectiveness than their male counterparts (e.g., Cheung, 2008; Viel-Ruma et al., 2010). On the other hand, a study in Bangladesh (Ahsan et al., 2012) found that male teachers have higher teaching efficacy than female teachers. However, other studies did not find any influence of gender on teaching efficacy (Penrose, Perry & Ball, 2007; Tejeda-Delgado, 2009). A recent study (Loreman, Sharma, & Forlin, 2013) concluded that gender of the teacher has little influence on teaching self-efficacy while implementing IE practices.

Teaching experience.

There are mixed findings regarding the influence of teaching experience on teacher efficacy. Some studies found that novice teachers hold lower levels of efficacy than teachers with more years of experience (Tschannen-Moran & Hoy, 2007; Cheung, 2008; Viel-Ruma et al., 2010). Supporting this, social cognitive theory (Bandura, 1977) implies that prior experience of teachers might be associated with teacher success and might be the source of change in teacher efficacy (Tschannen-Moran et al., 1998). Bandura (1977) maintained that an individual's readings of past experience lead to anticipate future performance of that specific task. However, there are other studies

which did not find any significant relationship between length of teaching experience and teacher efficacy (e.g., Guo, Piasta, Justice, & Kaderaveket, 2010).

Educational qualifications.

Educational background is a possible influence in teacher efficacy. Research suggests that differences in competence level among teachers might be due to differences in their level of education and the types of courses they undertook (Romi & Leyser, 2006). A recent study (Loreman et al., 2013) found that educational qualifications of teachers influence their teaching efficacy to use inclusive instruction, with teachers who held master degrees having higher levels of efficacy than the teachers with bachelor and secondary level qualifications. However, neither of two recent studies (Ahsan et al., 2012; Guo, Justice, Sawyer, & Tompkins, 2011) found educational qualifications of the teachers to be a significant predictor of teaching efficacy. Similarly, Woolfson and Brady (2009) did not find postgraduate qualifications to be predictive of teachers' self-efficacy for addressing students with special needs.

Contact variable.

Contact with a person with a disability has been regarded as a strong predictor variable on teacher efficacy. A number of studies (e.g., Ahsan et al. 2012; Forlin, Tait, Carroll, & Jobling, 1999) found that teachers who were most comfortable in teaching students with disabilities were those who had had previous contact with a person with a disability. Past studies (e.g., Villa et al., 1996) suggested that contact with a person who has a disability inspires positive views toward disability which, in turn, may result in favourable attitudes toward inclusion of students with disabilities in regular classrooms. Forlin et al. (2009) suggested that contact with a student with a disability reduces the levels of concern and improves positive attitudes towards IE. In order to improve teachers' conceptions of fairness in inclusive classrooms, Berry (2008) recommended

providing teachers with opportunities to have contact with students with disabilities.

Not surprisingly, such experience was found to be significantly associated with teachers'

higher self-efficacy (Leyser et al., 2011). However, there are studies (e.g., Bradshaw &

Mundia, 2005) which did not find any significant impact of contact on positive attitudes

of teachers.

Teacher training.

Teacher training contributes to higher teacher efficacy (Cheung, 2008; Forlin &

Chambers, 2011; Tschannen-Moran et al., 1998). It has been argued that training can

uphold teacher efficacy in a challenging situation in an inclusive classroom (Scanlon &

Barnes-Holmes, 2013). It has also been found that appropriately trained teachers are

more confident to teach students with special needs and less inclined to send them to

special schools (Egyed & Short, 2006). It is evident that, in general, the majority of

teachers consistently feel that they do not receive sufficient training in how to meet the

learning needs of students with special needs (Alvarez, 2007; Gebbie et al., 2012).

However, it was argued that, even when provided with abundant support and intensive

training, teachers' competency beliefs might not change in the short term (Malinen et al.,

2012). A recent study in Bangladesh found that length of teacher training is a

significant predictor of teaching efficacy, whereby pre-service teachers in a one year

long course had higher levels of teaching-efficacy than the pre-service teachers in a four

year course (Ahsan et al., 2012). On the other hand, there are studies which did not find

any significant impact of training in changing teacher efficacy (e.g., Gotshall &

Stefanou, 2011).

Previous success in teaching student with disabilities.

Past experience of successfully teaching students with special needs and/or

disabilities potentially increases teacher efficacy. Also, proficiency beliefs can be

increased significantly if one experiences success in difficult tasks with little assistance (Tschannen-Moran et al., 1998) as does having a series of positive experiences (Lamorey & Wilcox, 2005). However, it has been cautioned that merely exposing teachers to inclusive classrooms in which there are students with special needs does not automatically yield mastery experiences and increase levels of self-efficacy (Malinen et al., 2012). While positive experience increases self-efficacy, a negative experience decreases it (Bizer, Barden, & Petty, 2003) and, as Taylor and MacKenney (2008) noted, observing other people succeed or fail affects a person's confidence in his/her own capabilities.

Classroom size.

Numbers of students in the classroom might influence teachers' willingness to teach students with a disability in an inclusive classroom. A recent study found that teachers with small class sizes demonstrated a high sense of teacher success while those with large class sizes demonstrated a low sense of teacher effectiveness (Sullivan, 2012). Another study found that the higher the number of students in a regular classroom, the less the teacher is inclined to include students with special needs (Meijer & Foster, 1988).

Setting of the school.

Research indicates that the location of the school in which the teacher works may influence teachers' sense of efficacy (Labone, 2004), as the formation of teacher efficacy is context-specific (Bandura, 1997). Knoblaucha's and Hoy's (2008) study found that teacher efficacy in an urban setting was found to be lower than in a suburban or rural setting.

Summary.

It has been observed that teacher efficacy with regard to inclusive education is a new but very worthy domain for educational research. Despite its apparent importance in successful IE enactment in the classroom, this variable has not yet been adequately examined in Western countries let alone in developing nations. The majority of past studies focused on teachers' self-efficacy beliefs in general while a very limited number of studies examined teacher efficacy with a focus on inclusive education. However, this variable is increasingly receiving attention from contemporary researchers eager to understand the effectiveness of inclusive teaching practices in regular classes. In light of the above review, it is evident that greater teacher efficacy is very much interrelated with the success of a teacher while implementing IE in regular classes. It is also evident that a teacher with higher teaching efficacy might be more positive towards inclusion than a teacher with a lower level of teacher efficacy. Teacher efficacy is context specific and may be associated with other variables and situations, including teacher attitudes, teacher training, teachers' perception of having support and resources, past success in teaching students with a disability, and contact with a person with disability. However, these inferences with regard to teacher efficacy have been drawn mainly from studies conducted in Western contexts since there are very few such studies in developing countries, warranting the further examination undertaken in this current study.

Perceived School Support for Inclusive Education

In this study, perceived school support for implementing inclusive practices has been conceptualised within the framework of the TPB as a subjective norm (Ajzen, 1991) and examined for its association with teacher attitudes towards inclusion, teacher efficacy, and teachers' behavioral intentions to include students with disabilities in regular classrooms. Understanding teachers' perceptions of school support is critical for

successful implementation of IE (Chiner & Cardona, 2012). The following discussion introduces relevant contemporary empirical studies and focuses on the importance and types of support areas that are central to implementing effective IE practices

Availability of support (e.g., human and material resources) has been emphasised as significant to teachers' positivity towards inclusion (Ainscow et al. 2012; Das et al., 2013; Shevlin et al., 2012). There are a myriad of studies that indicated teachers need adequate physical support and resources for implementing inclusive practices (e.g., Cooper & Jacobs, 2011; Coskun et al., 2009). Further, teachers perceive that constraints in support and resources (e.g., training, time, teaching resources, and cooperation) increase challenges for them and kindle resistance in them whilst implementing IE (Shevlin et al., 2012). This has led to inclusion literature persistently reporting requests by teachers for more resources, time and training (Chiner & Cardona, 2012). Previous studies claim that school support might not only influence teachers' attitudes towards IE (Coutsocostas & Alborz, 2010) but also teacher efficacy in enacting IE practices (Sharma et al., 2012). However, there are studies in developing countries (e.g., India) that suggested successful implementation of IE is not solely related to plentiful resources, demonstrating as they do that IE is possible to implement with limited resources (Alur, 2007). Alur's observations draw attention to the determinant of teachers' perceptions of adequacy and suitability of support and resources which is an aspect that this study emphasises. Since school support and resources are highly recommended by past studies as important ingredients for IE enactment, the following section provides an overview of key areas of support and resources for implementing IE.

Key areas of support and resources for implementing inclusive education.

Support from the school community.

IE implementation requires shared responsibility and a community of practice (Ainscow & Sandill, 2010; Smith & Barr, 2008). Literature in this review identified the school community as comprising school leaders, colleagues, professional staff (e.g., special needs coordinators, teacher aides), local community members and parents of the students, all of whom are stakeholders important to supporting IE enactment in regular classrooms.

Support from school leaders.

Classroom teachers need adequate support in the form of cooperation from the school leaders including Principals and school administrative bodies (e.g., local school authority) for performing IE practices at the classroom level. Past studies (e.g., Leithwood & Riehl, 2005) suggest that a major role of an effective leader is to empower individuals by providing intellectual motivation and support. Johnson and Johnson (1989) argued that, to ensure an effective learning environment in a school, Principals need to encourage a shared vision among the teachers and other stakeholders to maintain a cooperative team. Beyond these generalities and because of them, encouragement and support from school Principals may positively influence IE practices in the school, as noted by Avramidis and Norwich (2002) who (with reference to a previous study by Chazan, 1994), commented that school Principals are instrumental in developing teachers' positive attitudes towards and, thus, acceptance of IE when they are supportive, cooperative and continuously encouraging. Dyal, Flynt, and Bennett-Walker (1996) previously had suggested that the Principal can play a very significant role in advancing enforcement of IE processes at school through cooperating with the teachers. However, studies have since found that teachers at regular schools felt

a lack of support from the school administration to support IE programmes, which raised concern among them about the progress of IE (Daane, Beirne-Smith, & Latham, 2000; Hammond & Ingalls, 2003). Another study predicted that teachers' perceptions of insufficient support from the Principal of the school might be the pivotal cause for change towards inclusion not always occurring, adding that direct consultation with teachers would alert Principals to teachers' needs (Idol, 2006). However, it can be the case that, while "teachers did not feel supported by their Principals, the Principals seemed to feel that they were offering support by taking care of the administrative aspects of integration" (Valeo, 2008, p. 14). It would be fair to suggest that, in addition to the school Principals, teachers also need support from local school authorities as, in developing countries like Bangladesh, the school management committee (e.g., local leaders, representative of teacher, education officer), along with the school Principal, makes local level decisions (Nath & Shahjamal, 2004). Taking this a step further, Mullick, Deppeler, and Sharma (2012) argued that school leaders need to encourage *all* stakeholders of the school community to perform their respective roles in order to making IE effective.

Support from colleagues.

Collaboration within the school, particularly among colleagues, can provide classroom teachers with a feeling of shared responsibility for a difficult situation in teaching (Deppeler, 2012). Also, Parsons and Stephenson (2005) proposed that cooperation and social interaction with colleagues can improve teaching practices. Indeed, many studies showed that teachers' peer collaborations are very effective tools of professional development and not only strengthen the efficacy of the teachers but also improve teaching practices (e.g., Brownlee, Purdie, & Boulton-Lewis, 2001; Deppeler, 2007; Harrison, 2005; Howard, McGee, Schwartz, & Purcell, 2000). It is apparent that teachers are more likely to feel confident including students with special

needs if they have collegial support and interaction (e.g., Black, Harrison, Lee, Marshall, & William, 2004; Borko, 2004; Elmore, 2002; Wiliam & Thompson, 2007). It has been shown that looking to colleagues for assistance when working with children with special educational needs is not shameful (Boyle, Topping, Jindal-Snape, & Norwich, 2012, p. 173). Rather, peer coaching and collaboration have been identified as powerful tools in developing teachers' professional skills in an inclusive setting (Ainscow, 2000). Idol's study advocates teachers work closely with each other to ascertain the most effective use of human (teacher) resources, including for teaching students with disabilities in regular classrooms (2006, p. 91).

   Support from parents.

   Parents' active participation in the implementation of effective IE practices is acknowledged as pivotal in the IE process (Hornby & Lafaele, 2011; Shevlin et al., 2012; Yssel, Engelbrecht, Oswald, Eloff, & Swart, 2007). Indeed, parental involvement has been a driving force in the move towards including students with disabilities in general education in many schools throughout the world (Soodak, 2004). It is essential to share "decision making and the responsibility for outcomes" with parents when developing a more inclusive system (Swart, Engelbrecht, Eloff, Pettipher, & Oswald, 2004, p. 81). Soodak (2004) agreed, noting that the move towards IE must include parents' perspectives because, apart from the children themselves, they are the primary stakeholders in the success of such effort. Many other studies (e.g., Palmer, Fuller, Arora, & Nelson, 2001) also consider parental support and involvement to be influential in facilitating IE. A strong parent–teacher partnership is an essential element for the success of inclusive education: teaching students with disabilities requires teachers to work collaboratively with families (Deppeler, 2012; Smith & Barr, 2008). Parents of students with and without disabilities are vital to fulfilling IE in regular classrooms. De Boer, Pijl and Minnaert (2010) argue that, if both groups of parents (i.e., with and

without children with special needs and/or disabilities) have positive attitudes towards IE and are supportive, teachers will be more willing to enforce IE[4]. In a number of qualitative case studies, Milner and Hoy (2003) found that supportive actions from parents and from the school are key to protecting teachers' sense of efficacy, especially during difficult situations. Hence, it can be eminently valuable to consider parental involvement and support as an important issue when implementing IE.

Supply of resources.

The importance of human and material resources with regard to implementing IE has been of interest in various international studies (e.g., de Boer et al., 2011; Tshifura, 2013).The following section focuses on the different resources considered essential for IE enactment.

Human resources.

Support from specialised professional staff (e.g., special needs coordinator/aides with expertise in inclusive education) is very important for conducting IE practices in regular schools (Forlin & Rose, 2010) and, indeed, is crucial when teaching a large class. Idol (2006) suggested assigning specialised teams to assist teachers in the classroom. The same study also suggested supporting classroom teachers through mentoring. Earlier, Avramidis and Norwich (2002) argued that such professional backing could influence general education teachers' attitudes and confidence towards IE. Indeed, there is a plethora of studies (e.g., Devecchi, Dettori, Doveston, Sedgwick & Jament, 2012; Ring & Travers, 2005; Scruggs & Mastropieri, 1996) which have

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[4] They further argued that potential support for implementing IE ought to be specific according to several variables including the student's socio-economic background, type of disability, and experience with IE (de Boer, Pijl, & Minnaert, 2010).

emphasised the importance of human resources when teaching students with special needs or disabilities.

International studies have investigated education systems in many countries across the world that provides professional staff to support inclusion processes. For example, there are Special Educational Needs Coordinators and Support Teachers in the UK and Italy respectively (Devecchi et al., 2012), and Special Needs Officers in Singapore (Chen & Poon, 2008) work with classroom teachers in regular schools, particularly to address the requirements of students with special needs and/or disabilities. Subban and Sharma (2006) found that teachers' perceptions of lack of assistance from support staff (e.g., para-professionals) create concern amongst those teachers when educating students with special needs. Thus, teachers in mainstream schools need to be supported in the challenges of teaching a student with a disability. At the same time, this support is required for the students themselves. Therefore, in order to progress IE enactment in classroom practices, it is important to reflect on teachers' perceptions of such support and resources (Valeo, 2008).

Material resources.

The literature indicated that teachers in regular schools need material resources (e.g., inclusion friendly classroom environment, special needs teaching equipment and flexible curriculum) to implement IE practices in the classroom (e.g., Mukhopadhyay, 2013). The absence or insufficiency of material resources and support services and poor infrastructure in schools are some of the major hurdles to inclusion in most developing countries (Eleweke & Rodda, 2002), where teachers are often concerned about the limited resources available or supplied for accomplishing IE (Mullick et al., 2012). Similarly, a study in Ireland (a developed country) found that teachers are concerned about the lack of specialist teaching materials available to them (Ring & Travers, 2005).

However, Barton (2010) argued that the significance of human and material resources is "much more crucial in a social context in which there are both limited resources and extensive inequalities arising from the existing economic and structural relations" (p. 91).

Since resources are important predictors of realising IE, researchers in both developed and developing countries mention the value of utilising the available and local resources in an innovative and effective way to successfully achieve inclusive education in regular schools (e.g., Kalyanpur, 2011; Westwood & Graham, 2003). The emphasis in a number of earlier studies (e.g., Clayton, 1996; Scruggs & Mastropieri, 1996) of the necessity to ensure the provision of required resources, including curriculum, for teaching students with special educational needs indicated that supplying teachers with adequate educational materials (e.g., instructional resources, disability friendly facilities) is a prerequisite to successful implementation of IE practices in regular classrooms. Coskun et al. (2009) specify that educational materials are the tools that enrich the learning process and make learning concrete, which teachers cannot overlook if they are to make teaching and learning effective. However, it has been shown (see, e.g., Sucuoglu, 2006, cited in Coskun et al., 2009) that materials for inclusive teaching practices are usually inadequate. The same study further argued that it is important teachers use the appropriate teaching materials to make the learning process tangible and easier for the students.

Teachers' perception of support and resources for effective inclusive practices.

One of the major challenges to implementation of IE reform that researchers found (e.g., Hodkinson & Devarakonda, 2009) is teachers' perception of a lack of adequate support. Upholding greater teacher confidence, which is a prerequisite for IE

success, requires that teachers feel they are being supported (Sharma et al., 2009). Whilst a strong sense of support impacts positively, the perception of an absence of support increases concerns among the teachers about successful implementation of IE (Chhabra, et al., 2010), potentially influencing teachers' attitudes towards inclusion and actual implementation behaviour (Lambe & Bones, 2006). Negative attitudes held by teachers are associated with their perception of lack of support and resources (Coutsocostas & Alborz, 2010). If the teachers do not feel they receive what they require (e.g., support from the leadership, colleagues, and resources), not only might this hinder successful inclusion processes but it may also contribute to teacher 'burnout' (Talmor et al., 2005). This important role of perceived support has been reflected in the thoughtful comments of Griffin and Shevlin (2007, p. 104) that "teachers are just as vulnerable as children to the loss of self-esteem, particularly if they experience an abiding sense of failure when support is not forthcoming." A recent international study specified management support and collegial support as important predictors for effective inclusion practices at schools (Boyle et al., 2012). Agreeing with Ellison's earlier findings (2008), Boyle and colleagues (2012, p. 173) argued that peer support for teachers is crucial to create a strong framework within which to enact inclusion. Another recent study in Spain considered both material and personnel support to be important for teachers and found that these supports were significantly related to teachers' perception of inclusion (Chiner & Cardona, 2012). The importance of teachers' perception of having adequate support has been evident across cross-cultures with a similar picture being found, with regard to the need for support, in six different countries – USA, UK, Netherlands, Denmark, Sweden and Italy (Meijer, Pijl, & Hegarty, 1994). A study in the USA (e.g., Buell et al., 1999) also found that teachers' perception of adequate support is important to perform IE in that context. Given the existing situation of support and its importance to teachers, the same study urged the

need for changing both programmatic (e.g., lower class size, use of assistive technology) and structural (e.g., training support, teachers' involvement in curricula decisions) supports for teachers in the USA. A report by Eloff and Kgwete in South Africa raised concerns about "implementing inclusion without concomitant strategies for teacher support" (2007, p. 352). This study further revealed that the area which teachers in South Africa perceive they most need support in is resources, both material (such as teaching aids and physical structures) and human (such as sufficient teachers, teacher assistants, and general helpers). The study reported that teachers who perceived that they had adequate support from a special education teacher had more positive beliefs and attitudes towards inclusion than teachers without adequate support. A recent study in Bangladesh identified some challenges towards administering IE, including non-supportive views of parents and community, and lack of adequate resources available to teachers (Mullick et al., 2012). However, an adequate supply of both human and material resources is not the sole requirement for successful implementation of IE: IE also requires a strong commitment, willingness and positive attitude towards the programme (Polat, 2011).

There is an abundance of research supporting this notion that adequate support and resources are important since perception of the support might potentially influence their attitudes towards inclusion of students with disabilities. As well as that mentioned above, Avramidis and Norwich (2002) advise that "with the provision of more resources and support, teachers' attitudes could become more positive" towards IE (p. 142), based on earlier findings that the availability of material and staff support service for teachers is consistently associated with positive teacher attitudes toward the inclusion of children with diverse needs in their classrooms, which indicates that resources, support and school frameworks all impact on teachers' views about IE (Avramidis et al., 2000; Avramidis & Norwich, 2002). Support and resources also affect teacher efficacy to

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implement inclusive practices. In their study, Tschannen-Moran and Hoy (2002) indicated that the quality of available social support and resources plays an important role in the development of expertise of teachers and confirmed the relationship between the quality of school support and teachers' sense of teaching efficacy and professionalism. Sucuoglu (2006) also noticed that a lack of teaching materials, as well as lack of knowledge about using the materials, may lower a teacher's sense of competence (cited in Coskun et al. 2009).   Greenwald, Hedges, and Laine (1996) have noted the fact that school support, including resources, is systematically related to students' learning. Morley, Bailey, Tan, and Cooke (2005) made an interesting suggestion that teachers' perceptions of having sufficient support might be inherently low when rendering IE, since so many studies have found that teachers constantly identified they require additional support to execute IE.

The necessity for such support to address diversity and special needs in the class has been implied in the continuum of global discourse (e.g., Boyle, et al., 2012; Podell & Tournaki, 2007; Shaughnessy, 2004). Amongst the "appropriate support, resources and training" required by teachers to successfully include students with disabilities (Morley et al., 2005, p. 102), it has been shown that the implementation of IE requires collaboration among the school community. In other words, working collectively with Principals, colleagues, managing body, parents of students with and without disabilities, and professional staff (e.g., specialist teachers, teacher aides) enables teachers to generate "innovative solutions" to the challenges IE presents (Deppeler, 2012, p. 125). Following the viewpoint of Fullan (2001) that the integration process requires collective initiatives and collaborative efforts among the major stakeholders, including classroom teachers, support staff, administrators, school Principals, and parents,Valeo's (2008) study similarly showed that teachers perceived they could implement IE better when cooperating with other professional staff. Another study recommended that Principals

should "visit classrooms and ask teachers what they realistically need to better include all students" (Idol, 2006, p. 91).

Teachers need support both from inside and outside the classroom for their students with special needs, including those with disabilities (Soodak & Podell, 1994; Ysseldyke, Algozzine, & Thurlow, 1992). To discharge inclusive teaching practices in the mainstream classroom setting, the teacher needs to perceive that they themselves receive support from the school stakeholders in IE including the school Principal, school managing body, colleagues, and parents of students. Lack of such perception could foster negative attitudes towards inclusion (Lambe & Bones, 2006). The Principal is the leader at the school level who can best support classroom teachers. It has been argued that teachers' commitment to implementing IE was found to be strongly prejudiced by their perceptions of the Principal's efforts in creating a collegial environment and endorsing a shared vision and shared values among the teachers and allied professionals (Deppeler, 2012; Ware & Kitsantas, 2011). Indeed, teachers might feel stressed when performing IE if they are not supported by their Principals (Hammond & Ingalls, 2003; Subban & Sharma, 2005). One study argued that schools with a high degree of consensus about students' learning goals are those in which the Principals are active and collaborative with teachers (Brownell & Pajares, 1999). It is justifiable to assume that teachers who get support from their Principal and colleagues may be more willing and confident to include students with disabilities than those who do not get such support.

It is evident that administrative support and collaboration stand out as the most frequently uttered and most likely predictors of teachers' positive attitudes toward inclusion (Soodak, et al., 1998; Villa et al., 1996). The importance of such support has been reiterated in a study in Australia which found that support from human resources,

including the Principal, other teachers and volunteer helpers, is significantly valuable with regard to achieving IE (Westwood & Graham, 2003). It is constantly reinforced that teachers need to receive continuous support and assistance from school stakeholders such as the school counsellor, the school Principal, special education teachers, and paraprofessionals for successful implementation of IE (Talmor et al., 2005). It is also apparent that support, both physical (e.g., teaching materials, IT equipment, a restructured physical environment) and personnel (e.g., learning support assistants, special teachers, and health professionals), has been constantly associated with teachers' attitudes towards IE (e.g., Avramidis & Norwich, 2002). This has been long recognised, with studies in the 1990s (e.g., Lipsky & Gartner, 1998) identifying leadership, collaboration, support for staff, parental involvement, and funding as instrumental in effective practice of IE at school.

Summary.

It is evident that teachers' acceptance of IE is influenced by their perception of adequacy of resources and support: insufficient support and resources result in less favourable perceptions towards IE which may hinder the quality of education and teachers' willingness to implement IE. One of the areas of major concern to teachers is the support and cooperation they feel they receive from the school community (Arbeiter & Hartley, 2002). A lack of such feeling of support might cause, at the very least, anxiety in teachers (Skaalvik & Skaalvik, 2007). A greater consequence is the perception of a scarcity of personal support and resources might prevent teachers developing positive attitudes towards IE and, subsequently, being active in promoting inclusion (Avramidis et al., 2000; Cardona, 2011; Coutsocostas & Alborz, 2010).

Therefore, it is manifest in the above review that school support and resources for implementing inclusive practices in regular classes are vital ingredients in IE. These

supports are stated by teachers as the provision of sufficient instructional and human resources, and assurance of cooperation from parents, peer colleagues, and school management. The literature indicates that, if teachers do not perceive they have the required support for, and while, discharging IE, it may reflect in their competence in teaching and attitudes towards inclusion, and, eventually, in their behavioural intentions to include students with disabilities in their classrooms. In order to make teachers feel they have the backing they require, teachers, leaders, and parents need to work together: teachers need cooperation from the school community, for successful IE enactment.

Chapter 3
Methodology

This chapter presents an overview of the research methodology used in this study. Specifically, it introduces the research design, participant selection procedures, survey questionnaires, focus group interview guiding questions, and data analysis procedures. These elements are discussed in detail in the incorporated papers, each of which addresses specific methodological aspects. The chapter concludes with the paper that focuses on the development of the Perceived School Support for Inclusive Education (PSSIE) Scale.

Research Design

An appropriate theoretical framework not only allows a researcher to conceptualise a set of variables but also supports the design of a study by modelling how to examine the allied variables in a systematic way (Evans, Coon, & Ume, 2011; Miles & Huberman, 1994). When required, it can provide a base from which to make predictions by assessing the relationships among the variables (Polit & Beck, 2004). The Theory of Planned Behaviour (TPB) (Ajzen, 1991) has guided this study, offering a structure for theorising the variables (teacher attitudes, teacher efficacy, perceived school support, and teachers' intentions) and for designing the research to investigate the causal mechanisms among the variables and beyond. The study used mixed methods (i.e., both quantitative and qualitative approaches) in order to gain a deep understanding of the variables and their relationships, working on the premise that, with a mixed design, the investigator "collects and analyses the data, integrates the findings, and draws inferences using both qualitative and quantitative approaches or methods in a single study or program of inquiry" (Tashakkori & Creswell, 2007, p. 4). According to Creswell (2009), seeking convergence among quantitative and qualitative methods is an effective means by which to offset any inherent biases that may occur. In this study,

immediately after the application of a survey, focus group interviews were undertaken with the same population to explore the phenomena of interest in more detail (Feilzer, 2010). In addition to the survey, the application of focus group interviews provided an opportunity to further understand some of the connections among teachers' attitudes, efficacy and behavioural intentions regarding children with disabilities in their classrooms.

Participant Selection Procedure

There are seven regional and administrative divisions in Bangladesh. Each of these divisions is sub-divided into districts and each district is further divided into sub-districts. Government primary schools situated in each sub-district are clustered under the sub-district's education administration. All sub-districts under a division can be categorised into three groups based on the location: urban sub-districts (located in the metropolitan city), semi-urban sub-districts (located in a district town) and rural sub-districts (located in the countryside). In order to select participants for this study, a four-stage cluster sampling method was employed (Fowler, 2002; Wiersma, 1991). At the first stage, out of seven regional and administrative divisions in Bangladesh, Dhaka, the central division, was selected. The reason for choosing the central division is that it is more populous, diverse and representative of urban, semi-urban and rural sub-districts than any other division.

At the second stage, four sub-districts were randomly chosen from the spread of sub districts by type – urban (1), semi-urban (1) and rural (2) (i.e., one out of 21 urban sub-districts, one out of 17 semi-urban sub-districts and two out of 64 rural sub-districts). The numbers of sub-districts chosen formed a ratio that approximated the distribution of sub-districts in the three groups (urban, semi-urban and rural). At the

third stage, all government primary schools located in the four sub-districts were nominated as appropriate to include, a total of 293 schools. Finally, 1,387 in-service teachers working in those primary schools were invited to participate in this study (see Table 1).

Participants for Survey

Survey questionnaires were sent to 1,387 in-service primary school teachers. A total of 738 teachers completed and returned the survey questionnaires, out of which 708 surveys were used for data analysis. Thirty surveys were discarded because they were incomplete, resulting in a total of 708 surveys to analyse (see Table 1 for participant selection procedures for survey). A detailed description of participant selection for the surveys is narrated in Paper 2 (see Chapter 4).

Table 1

Participant Selection for Survey

Information about the selected sub-districts		Number of Schools	No of in-service teachers	Number of returned surveys
Location	Number			
Urban	1	17	181	153
Semi-urban	1	116	463	185
Rural	2	160	743	400
Total	4	293	1387	738

Participants for Focus Group Interviews (FGI)

Teachers were also invited to participate in a focus group interview. From the 132 teachers who consented to be interviewed, a total of 22 in-service teachers were deliberately selected for four focus group interviews. Among the 22 participants, five participants were selected from each of the urban and semi-urban sub-districts and six participants from each of the two rural sub-districts. While selecting the participants for the FGI, the diversity of the participants (i.e., location of employing school, gender and age of the participants) was taken into consideration. However, the selected FGI participants did not fully represent the diversity of the population in Bangladesh. Table 2 shows the participant selection procedures for FGI.

Table 2

Participant Selection for Focus Group Interviews

Information about the selected sub-districts		Total no. of schools	No. of teachers who consented for FGI	No. of teachers who changed their mind/could not be reached	No. of teachers who finally agreed	No. of teachers finally selected for FGI
Location	Number					
Urban	1	17	52	12	40	5
Semi-urban	1	116	61	8	53	5
Rural	2	160	56	17	39	12 (6+6)
Total	4	293	169	37	132	22

Data Collection

Project approval and permission for data collection.

This study project was approved by the Monash University Human Research Ethics Committee (MUHREC) (Appendix E). Approval was also sought and obtained from the Directorate of Primary Education, Bangladesh (Appendix F).

Procedure.

Data collection involved both survey questionnaires and focus group interviews. Survey packages contained questionnaires and explanatory statements, consent forms for participating in a FGI, and pre-paid envelopes. One package for each potential participant, i.e. 1,387 in-service teachers in the selected sub-districts, was sent to the respective education office of each sub-district. The education officers were invited to distribute them to the Principals of each government primary school for distribution among the teachers.

Survey instruments.

Survey data were collected utilising a five-part questionnaire (see Appendix A). An overview of the surveys has been provided in Table 3.

Part 1: Demographic questionnaire.

From the questionnaire, participants' demographic information such as gender, age, educational qualification, length of teaching experience, previous contact with a student with disability in the classroom, acquaintance with a person with a disability outside the classroom, previous training in IE, and past success in teaching students with disabilities was collected.

Part 2: A modified version of the school Principals' attitudes toward inclusion (SPATI) scale.

In order to examine teachers' attitudes towards inclusion of students with disabilities in regular schools, the questionnaire used was a modified version of the *School Principals' Attitudes toward Inclusion (SPATI)* scale (Bailey, 2004) that included 21 items. Participants were asked to respond on a five-point Likert type scale

with anchors *Strongly Disagree* (1) to *Strongly Agree* (5). A higher score on the scale

implied positive attitudes towards inclusion. Details about the *SPATI* have been

presented in Paper 2, 'Variables affecting teachers' attitudes towards inclusive

education in Bangladesh' (see Chapter 4).

Part 3: Teacher efficacy for inclusive practices (TEIP) scale.

The study measured teacher efficacy to implement inclusive practices using the

Teacher Efficacy for Inclusive Practices (TEIP) scale (Sharma et al., 2012). The scale

had 18 items and participants rated their opinion on a six-point Likert type scale ranging

from 1 (strongly disagree) to 6 (strongly agree). Specifics of the scale have been

described in Paper 3, 'Impact of demographic variables and school support on teacher

efficacy in inclusive classrooms in Bangladesh' (see Chapter 4).

Table 3

Information about the Scales used in this Study for Measuring Different Variables

Measuring construct of TPB	Measuring scale (Acronym)	Number of items	Cronbach's alpha (refer to original validation study)
Attitudes towards a behaviour (Attitudes towards IE)	SPATI	21	0.91
Subjective norms (Perceived school support)	PSSIE	8	0.86
Perceived Behavioural Control (Perceived teacher efficacy)	TEIP	18	0.89
Intentions towards performing a behaviour (Teachers' intentions to include students with disabilities)	MATIES	6	0.91

Part 4: Perceived school support for inclusive education (PSSIE) scale.

Data regarding teachers' perception of school support for implementing inclusive practices in the classrooms were collected by applying a *Perceived School Support for Inclusive Education (PSSIE)* scale. PSSIE was specifically designed for the current study. It had 8 items and participants responded on a five-point Likert type scale with anchors 1 (*none at all*) to 5 (*a great deal*). A higher score on the scale indicated a higher degree of perceived school support. Details of the development of this scale are reported in the paper entitled, 'Measuring Perceived School Support for Inclusive Education in Bangladesh: the development of a context specific scale' (paper 1), included at the end of this chapter.

Part 5: Multidimensional attitudes toward inclusive education scale (MATIES).

Data on teachers' intentions to include students with disabilities in regular classrooms were collected using the *Multidimensional Attitudes Toward Inclusive Education Scale (MATIES)* (Mahat, 2008). The original *MATIES* scale consists of three subscales, namely affective, cognitive and behavioural aspects. This study used the behavioural sub-scale which has six items. The respondents indicated their opinion on a six-point Likert scale, with response anchors from 1 (*strongly disagree*) to 6 (*strongly agree*). Further information about this scale has been provided in Paper 4, 'Variables affecting teachers' intentions to include students with disabilities in regular primary schools in Bangladesh' (see Chapter 4).

Focus Group Interviews (FGIs).

Four FGIs (one with in-service teachers employed in the schools in urban sub-district, one in semi-urban and two in rural sub-districts) were undertaken to gather

qualitative data. The FGIs were guided by a set of semi-structured questions which were developed by the researcher though a piloting process.

Development of FGI guiding questions.

The development of the FGI guiding questions followed a three step procedure. Initially, the researcher developed a list of six questions based on international studies in the field (e.g., Coutsocostas & Alborz 2010; Tschannen-Moran et al., 1998; UNESCO, 2010), and the researcher's contextual experiences as an educator. At the second stage, three educators (also researchers and well acquainted with primary education in Bangladesh and inclusive education) were requested to provide feedback on these questions. They were provided with the broad aims of the study as well as the research questions and they were asked to comment on the FGI guiding questions for: their appropriateness in the context of Bangladesh; their clarity; and whether they covered the domain of interest. After receiving their feedback, a few of the questions were modified (e.g., added 'not receiving' in question no 3). At the third stage, the researcher checked the guiding questions with two supervisors and modified a few words and phrases for better clarity. The final version of the FGI guiding questions has been included in the Appendices (see Appendix B).

Adaptation and Content Validation for Surveys and FGI Protocol

Context is an important issue in educational research (Crossley, 2010). Prior to data collection, both survey questionnaires and FGI guiding questions were adapted through a rigorous content validation process for ensuring that these were useful in the setting of primary education in Bangladesh. This process included the translation of the instruments into Bangla, and review of the instruments by a panel. It is significant to

report here that, as a part of adaptation, the reliability of all scales was calculated using samples from the study, prior to undertaking the data analysis.

Translations of survey and FGI guiding questions.

Both the survey questionnaires and FGI guiding questions were translated into Bangla, with awareness of ensuring conceptual consistency (Behling & Law, 2000). Two independent translators (who were educators and equally expert in both English and Bangla) were asked to perform these translations. The researcher himself reviewed the two sets of translations before arriving at the final version. Where there was a discrepancy, the researcher discussed them with the translators to reach a consensus on the correction (McGorry, 2000). Finally the translated instruments were verified by a NAATI (National Accreditation Authority for Translators and Interpreters) certified translator.

Review by a panel.

A twelve member panel was formed, comprising three academics working in the field of special education, three school Principals and three classroom teachers, one parent of a child with a disability, one education officer, and one Ministerial representative from the Education Department (see Paper 4 for further details).The panel members were asked to consider the Bangladesh context when assessing the survey questionnaires to determine whether the directions of the item statements were clear and comprehensible. They were asked to provide feedback on both the surveys and FGI guiding questions that led to a few items in the survey instrument being modified (e.g., insertion of the term 'school management committee' [SMC]), some items deleted

(e.g., item related to teacher aides as irrelevant in the Bangladesh context), and a few words of both surveys and FGI guiding questions rephrased for better clarity in Bangla[5].

Data Analysis

This study utilises both quantitative and qualitative data analysis procedures. Survey data were analysed using statistical procedures and FGI data were analysed using thematic analysis. A brief overview of the data analysis procedures corresponding to both quantitative and qualitative data is presented here. An elaborate description of data analysis follows, in the respective papers and a supplementary section (see Chapter 4).

Analysis procedures for survey data.

Statistical Package for the Social Sciences (SPSS) (version 19) was used to analyse quantitative data. The statistical analysis techniques include Pearson product-moment correlation coefficients, One-way between-groups analysis of variance (ANOVA), Independent-Samples *t*-test, Multiple Regression and Hierarchical Regression. Statistical analysis procedures corresponding to the individual research questions posed in this thesis are furnished below:

Research questions.

1. Is there any significant relationship between teachers' attitudes towards inclusion of students with disabilities in their regular classrooms and the background variables of teachers?

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[5] See Paper 1 for additional information regarding the review of PSSIE scale items and Paper 5 for FGI guiding questions.

2. Is there any significant relationship between teachers' attitudes towards inclusion of students with disabilities in their regular classrooms and perceived school support for implementing inclusive practices?

Analysis procedure.

To examine individual relationships between teachers' attitudes towards inclusion and perceived school support variables and background variables (gender, age, educational qualification, teaching experience, contact with a student with disability in the classroom, acquaintance with a person with disability outside the classroom, previous training on inclusive education, past success in dealing with students with disabilities), a number of bi-variate analyses techniques were used (e.g., One-way between-groups analysis of variance [ANOVA], Pearson product-moment correlation coefficients, and Independent-Samples *t*-test). In order to measure the individual, as well as collective, influence of all variables (demographic and support variables) on teachers' attitudes towards inclusion of students with disabilities in their regular classrooms, a Multiple Regression analysis procedure (Pallant, 2010) was used. These procedures are detailed in Paper 2 (see Chapter 4).

Research questions.

3. Is there any significant relationship between perceived teacher efficacy in inclusive classrooms and the background variables of teachers?

4. Is there any significant relationship between perceived teacher efficacy in inclusive classrooms and perceived school support for implementing inclusive practices?

Analysis procedures.

Establishment of the individual relationships between teacher efficacy and perceived school support variables and background variables (gender, age, educational qualification, teaching experience, contact with a student with disability in the classroom, acquaintance with a person with disability outside classroom, previous training on inclusive education, past success in dealing with students with disabilities), occurred via the application of a set of statistical procedures (e.g., Pearson product-moment correlation coefficient, One-way between-groups analysis of variance [ANOVA], Independent-samples *t*-test). A Multiple Regression statistical technique was also used to determine the contribution of independent variables (background and perceived school support) in explaining variance in teacher efficacy. Details of these analysis procedures have been reported in Paper 3 (see Chapter 4).

Research questions.

5. Do teacher attitudes towards the inclusion of students with disabilities, teacher efficacy to implement inclusive practices in classrooms, and perceived school support for implementing inclusive practices predict teachers' intentions to include students with disabilities in regular classrooms?

6. Do demographic variables contribute to the prediction of teachers' intentions?

Analysis procedure.

With the above research questions, Pearson product-moment correlation coefficients were employed to understand the individual relationships between the variables of teacher attitudes towards the inclusion of students with disabilities, teacher efficacy to implement inclusive practices in classrooms, perceived school support for

implementing inclusive practices, and teachers' intentions to include students with disabilities in regular classroom. A Hierarchical Regression Analysis was used to examine the predictive utility of the first three variables (i.e., teacher attitudes, teacher efficacy and perceived support) and demographic variables in teachers' intentions. Attitudes, efficacy and perceived school support variables were entered in the Hierarchical Regression equation in Step 1 and demographic variables in Step 2, to scrutinise the predictive strength of each set of variables, while the other is controlled. Details of this process are reported in Paper 4 (see Chapter 4).

Research questions.

7. What are the existing levels of teacher attitudes towards inclusion, teacher efficacy to implement inclusive practices in classrooms, perceived school support for implementing inclusive practices in the classrooms, and teachers' intentions to include students with disabilities in regular classrooms in primary education in Bangladesh?

8. Is there any significant relationship between teacher efficacy and teachers' attitudes towards inclusion of students with disabilities?

Analysis procedures.

In order to answer research question 7 Means and Standard Deviations were calculated. For research question 8, Pearson product-moment correlation coefficient was utilised. Details of these analysis procedures are presented in a supplementary section in Chapter 4.

Analysis procedures for FGI data.

Thematic analysis procedure was applied to extract themes from the FGI data. The analysis procedures used on the FGI data to address the following research questions have been provided below:

Research questions.

9. What are teachers' views about the inclusion of students with disabilities in regular classrooms in government primary schools in Bangladesh?

10. What factors might influence teachers' views to include students with disabilities in their classrooms?

Analysis procedures.

The focus group interviews were undertaken in Bangla, the native language of the researcher and the FGI participants. Two independent translators translated the data from Bangla into English, the researcher cross-checked these two sets and discussed with the translators where any discrepancies were found between the translations to attain a consensus. The final version of the English transcription was used for data analysis. The data analysis process followed the following steps to reach the final themes (Braun & Clarke, 2006, p. 87; Creswell, 2002, p. 266; Liamputtong, 2011):

➢ Reading of transcribed data
➢ Sections relevant to the research objectives were identified and assigned codes.
➢ The codes were revised to reduce overlap and repetition.
➢ The codes were organised into themes by grouping those with similar topics.

At the first step, the researcher read and reread the transcription of translated data a number of times to get a comprehensive overview of the responses of each participant with regard to the study's aims and objectives. Then, sections of transcriptions particularly relevant to the research objectives were highlighted and codes assigned to these sections, according to the topics raised in the interviews (Creswell & Plano-Clark, 2007). Afterwards, the codes were refined by deleting repetitions of topics[6]. The codes were then organised into themes by grouping those with similar topics. Finally, the honed themes were clustered, corresponding with the aims of the study (i.e., research questions no 9 and 10).

To achieve internal validity of the generated themes (Creswell, 2009), two researchers were asked to review the process of data analysis (i.e., initial coding to the final themes)[7]. The author produced the final version of the themes, after discussions with the reviewers to minimise any discrepancy.

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[6] The coding has been included in Appendix H.

[7] The assistance of the reviewers was acknowledged with gift vouchers worth AUD 100.

Paper 1: Measuring Perceived School Support for Inclusive Education in Bangladesh: the Development of a Context Specific Scale

This paper describes the development of the Perceived School Support for Inclusive Education (PSSIE) scale. The PSSIE scale was used alongside other survey instruments (i.e., a modified version of the School Principals' Attitudes toward Inclusion [SPATI] scale, Teacher Efficacy for Inclusive Practices [TEIP] scale, and Multidimensional attitudes toward inclusive education scale [MATIES]) to collect data for this study. It is important to emphasise that all the surveys were used to measure variables corresponding to the Theory of Planned Behaviour (i.e., attitudes [teachers' attitudes towards inclusion], perceived behavioural control [teacher efficacy], subjective norms [perceived school support] and behavioural intentions [teachers' intentions towards inclusion]). However, despite the recognised value and importance of understanding teachers' perceptions of support for inclusive practices, if these practices were to be successfully utilised in their classrooms, no instrument was found that could be applied, either in Bangladesh or any other developing country, to measure this variable of perceived school support for IE. This absence necessitated the development of an instrument to evaluate perceived school support in the particular context of Bangladesh.

Paper 1 is positioned in the Methodology chapter of the thesis, where all the instruments for measuring targeted variables in the study are introduced, to maintain continuity and consistency. Presenting a series of methodological procedures, including a review of the scale items by the expert panel and statistical analysis techniques such as factor analysis, the paper concluded with the final version of the PSSIE scale. Based on preliminary evidence from the data analysis, this paper showed that PSSIE is a useful instrument by which to measure the 'teachers' perceptions of school support for IE' variable. The paper also illustrated the limitations of this instrument, offered directions for further studies and introduced implications for stakeholders in Bangladesh.

Declaration for Publication

This paper has been published in an international, peer-reviewed, academic journal, *Asia Pacific Education Review*, published by Springer, as being relevant to its aims, scope, readership and circulation.

Reference:

Ahmmed, M. (2013). Measuring perceived school support for inclusive education in Bangladesh: The development of a context specific scale. *Asia Pacific Education Review*. doi:10.1007/s12564-013-9263-z.

Declaration by candidate

In the case of Paper 1, the nature and extent of my contribution to the work was the following:

Nature of contribution	Extent of contribution (%)
Single author paper	100%

The following co-authors contributed to the work:

Name	Nature of contribution
N/A	N/A
N/A	N/A

Candidate's Signature		Date	

Declaration by co-authors   N/A

The undersigned hereby certify that:

(1) the above declaration correctly reflects the nature and extent of the candidate's contribution to this work, and the nature of the contribution of each of the co-authors.

(2) they meet the criteria for authorship in that they have participated in the conception, execution, or interpretation, of at least that part of the publication in their field of expertise;

(3) they take public responsibility for their part of the publication, except for the responsible author who accepts overall responsibility for the publication;

(4) there are no other authors of the publication according to these criteria; potential conflicts of interest have been disclosed to (a) granting bodies, (b) the editor or publisher of journals or other publications, and (c) the head of the responsible academic unit; and

(5) the original data are stored at the following location(s) and will be held for at least five years from the date indicated below:

Location(s)	Faculty of Education, Monash University, Clayton, Victoria, Australia

Signature 1	N/A	Date	
Signature 2	N/A	Date	

This published paper is available at:

It is important to note that Paper 1 did more than simply introduce and describe the development of the Perceived School Support for IE (PSSIE) scale. It went further to provide understanding of the meaning of school support in the context of Bangladesh and, by extension, offered implications of whether teachers regard the support as adequate or not. This paper provided a basic understanding of the perceived school support variable. Based on this, the following papers (Papers 2, 3 and 4) reported the influences of this variable on other TPB variables (teacher attitudes, teacher efficacy and teachers' behavioural intentions). The same sample was used both to develop the PSSIE scale and to examine the relationship between perceived school support and other TPB variables (i.e., teacher attitudes, teacher efficacy and teachers' intentions). Further details of the connection of this paper with other papers included in the thesis have been provided at the end of Chapter 4.

Chapter 4
Findings of the Study

This chapter presents a summary of findings of the study, as reported in the four papers and the additional section. The included papers are:

- Paper 2: Variables affecting teachers' attitudes towards inclusive education in Bangladesh

- Paper 3: Impact of demographic variables and school support on teacher efficacy in inclusive classrooms in Bangladesh

- Paper 4: Variables affecting teachers' intentions to include students with disabilities in regular primary schools in Bangladesh, and

- Paper 5: Inclusive education in Bangladesh: Stumbling blocks on the path from policy to practice

Each of these papers addressed a different component directed towards the aims and objectives of the study. The additional section focused on teacher attitudes, efficacy, intentions and school support: levels and relationships. This latter section covered those research questions, results and findings not included in the listed papers. Given the theoretical (i.e., theory of planned behaviour), methodological (i.e., mixed method), and thematic (e.g., variables) perspectives of the papers, they have been ordered and included in this chapter.

The first and second paper of this chapter (Papers 2 & 3) focus on two major variables, teacher attitudes and teacher efficacy respectively, while the third paper (Paper 4) focuses on the influences of all TPB variables (teacher attitudes, teacher efficacy, and perceived school support) on teachers' behavioural intentions to include students with disabilities in regular classrooms. Unlike these three papers, which used survey data, Paper 5 examined the views of the teachers and the background factors that

underpinned these views on the basis of focus group interviews. The chapter describes

how these papers are connected to each other and to the findings not included in the

papers.

Paper 2: Variables Affecting Teachers' Attitudes Towards Inclusive Education in Bangladesh

This paper centred on one of the major variables of the study, as conceptualised within the framework of the Theory of Planned Behaviour (TPB) (Ajzen, 1991), and examined the predictors of teacher attitudes towards inclusion of students with disabilities in regular government primary schools in Bangladesh's Dhaka division. It concentrated on teacher attitudes towards inclusion of students with disabilities in regular classes, with a particular emphasis on the influences of perceived school support and background variables of the teachers on these attitudes.

Declaration for Publication

This paper has been published in the *Journal of Research in Special Educational Needs (JORSEN)*, a scholarly, peer-reviewed journal published by Wiley-Blackwell Publishing Ltd, UK, which publishes research articles on and around IE. It is anticipated that the wide readership of this journal may inform academics, national and international organizations, and the government of Bangladesh, about the determinants of teacher attitudes towards IE in the context of Bangladesh.

Reference:

Ahmmed, M., Sharma, U., & Deppeler. J. (2012). Variables affecting teachers' attitudes towards inclusive education in Bangladesh. *Journal of Research in Special Educational Needs, 12*(3), 132-140.

Declaration by candidate

In the case of Paper 2, the nature and extent of my contribution to the work was the following:

Nature of contribution	Extent of contribution (%)
Conducted the research, initiated the paper, reviewed literature, collected, coded and statistically analysed data, prepared the draft manuscript, incorporated other authors' and reviewers comments in final manuscript, prepared the final version and submitted for publication.	80%

The following co-authors contributed to the work:

Name	Nature of contribution
Dr. Umesh Sharma	Feedback on the study design, draft manuscript, and reviewers' comments.
A/Prof. Joanne Deppeler	Feedback on the draft manuscript.

Candidate's Signature		Date	

Declaration by co-authors

The undersigned hereby certify that:

(1) the above declaration correctly reflects the nature and extent of the candidate's contribution to this work, and the nature of the contribution of each of the co-authors.

(2) they meet the criteria for authorship in that they have participated in the conception, execution, or interpretation, of at least that part of the publication in their field of expertise;

(3) they take public responsibility for their part of the publication, except for the responsible author who accepts overall responsibility for the publication;

(4) there are no other authors of the publication according to these criteria;

(5) potential conflicts of interest have been disclosed to (a) granting bodies, (b) the editor or publisher of journals or other publications, and (c) the head of the responsible academic unit; and

(6) the original data are stored at the following location(s) and will be held for at least five years from the date indicated below:

Location(s)	Faculty of Education, Monash University, Clayton, Victoria, Australia

Signature 1		**Date**
Signature 2		**Date**

This published paper is available at:

Paper 3: Impact of Demographic Variables and School Support on Teacher Efficacy in Inclusive Classrooms in Bangladesh

Paper 3 addressed the major variable of teacher efficacy to implement inclusive practices in regular classrooms. Teacher efficacy has been conceptualised as perceived behavioural control within the Theory of Planned Behaviour, the theoretical framework used in the thesis to facilitate a systematic examination of all variables. In particular, this paper examined the influences of demographic and perceived school support variables on teachers' efficacy to implement IE.

Declaration for Publication

Recognising the similarity between the subject matter of this paper and the aims and scopes of the *International Journal of Diversity in Education,* which are diversity, disability study and inclusion, this paper, has been published in this peer-reviewed academic journal, published by Common Ground Publishing, U.S.A. It is anticipated that this paper may inform stakeholders about this critical variable, teacher efficacy, for consideration when introducing inclusive education.

Reference:

Ahmmed, M., Sharma, U., & Deppeler. J. (2013). Impact of demographic variables and school support on teacher efficacy in inclusive classrooms in Bangladesh. *International Journal of Diversity in Education, 12*(2), 1-14.

Declaration by candidate

In the case of Paper 3, the nature and extent of my contribution to the work was the following:

Nature of contribution	Extent of contribution (%)
Conducted the research, initiated the paper, reviewed literature, collected, coded and statistically analysed data, prepared the draft manuscript, incorporated other authors' and reviewers comments in final manuscript, prepared the final version and submitted for publication.	80%

The following co-authors contributed to the work:

Name	Nature of contribution
Dr. Umesh Sharma	Feedback on the study design and draft manuscript
A/Prof. Joanne Deppeler	Feedback on the study design and draft manuscript

Candidate's Signature		Date	

Declaration by co-authors

The undersigned hereby certify that:

(1) the above declaration correctly reflects the nature and extent of the candidate's contribution to this work, and the nature of the contribution of each of the co-authors.

(2) they meet the criteria for authorship in that they have participated in the conception, execution, or interpretation, of at least that part of the publication in their field of expertise;

(3) they take public responsibility for their part of the publication, except for the responsible author who accepts overall responsibility for the publication;

(4) there are no other authors of the publication according to these criteria;

(5) potential conflicts of interest have been disclosed to (a) granting bodies, (b) the editor or publisher of journals or other publications, and (c) the head of the responsible academic unit; and

(6) the original data are stored at the following location(s) and will be held for at least five years from the date indicated below:

Location(s)	Faculty of Education, Monash University, Clayton, Victoria, Australia

Signature 1		Date
Signature 2		Date

This published paper is available at:

Paper 4: Variables Affecting Teachers' Intentions to Include Students with Disabilities in Regular Primary Schools in Bangladesh

This paper brought all the variables (i.e., teacher attitudes, teacher efficacy and perceived school support) together, within the theoretical framework of the Theory of Planned Behaviour, in order to understand how all these variables influence teachers' behavioural intentions to include students with disabilities in regular classrooms.

Declaration for Publication

This paper has been published in an international, peer-reviewed, academic journal, *Disability & Society,* published by Routledge Publishers, UK, as being relevant to its aims, scope, readership and circulation.

Reference:

Ahmmed, M., Sharma, U., & Deppeler. J. (2013). Variables affecting teachers' intentions to include students with disabilities in regular primary schools in Bangladesh. *Disability & Society.* doi:10.1080/09687599.2013.796878.

Declaration by candidate

In the case of Paper 4, the nature and extent of my contribution to the work was the following:

Nature of contribution	Extent of contribution (%)
Conducted the research, initiated the paper, reviewed literature, collected, coded and statistically analysed data, prepared the draft manuscript, incorporated other authors' and reviewers comments in final manuscript, prepared the final version and submitted for publication.	80%

The following co-authors contributed to the paper:

Name	Nature of contribution
Dr. Umesh Sharma	Feedback on the study design, draft manuscript, and reviewers' comments.
A/Prof. Joanne Deppeler	Feedback on the draft manuscript

Candidate's Signature		Date	

Declaration by co-authors

The undersigned hereby certify that:

(1) the above declaration correctly reflects the nature and extent of the candidate's contribution to this work, and the nature of the contribution of each of the co-authors.

(2) they meet the criteria for authorship in that they have participated in the conception, execution, or interpretation, of at least that part of the publication in their field of expertise;

(3) they take public responsibility for their part of the publication, except for the responsible author who accepts overall responsibility for the publication;

(4) there are no other authors of the publication according to these criteria;

(5) potential conflicts of interest have been disclosed to (a) granting bodies, (b) the editor or publisher of journals or other publications, and (c) the head of the responsible academic unit; and

(6) the original data are stored at the following location(s) and will be held for at least five years from the date indicated below:

Location(s)	Faculty of Education, Monash University, Clayton, Victoria, Australia

Signature 1		Date
Signature 2		Date

This published paper is available at:

Paper 5: Inclusive Education in Bangladesh: Stumbling Blocks on the Path from Policy to Practice

To comprehensively understand the behavioural intentions of teachers to include students with disabilities in regular classrooms and other variables, additional data were gathered from the same population by employing focus group interviews (FGIs). This paper was based on this FGI data, focussing on teachers' views about inclusion of students with disabilities and the background causes that underpin teachers' decisions about inclusion.

Declaration for Publication

Given the aims and scope of this paper, it has been submitted to the *International Journal of Whole Schooling*, an academic, international, peer-reviewed journal.

Reference:

Ahmmed, M. (Submitted). Inclusive education in Bangladesh: Stumbling blocks on the path from policy to practice. *International Journal of Whole Schooling*

Declaration by candidate

In the case of Paper 5, the nature and extent of my contribution to the work was the following:

Nature of contribution	Extent of contribution (%)
Single author paper	100%

The following co-authors contributed to the work:

Name	Nature of contribution
N/A	N/A
N/A	N/A

Candidate's Signature		Date	

Declaration by co-authors

The undersigned hereby certify that:

(1) The above declaration correctly reflects the nature and extent of the candidate's contribution to this work, and the nature of the contribution of each of the co-authors.

(2) they meet the criteria for authorship in that they have participated in the conception, execution, or interpretation, of at least that part of the publication in their field of expertise;

(3) they take public responsibility for their part of the publication, except for the responsible author who accepts overall responsibility for the publication;

(4) there are no other authors of the publication according to these criteria;

(5) potential conflicts of interest have been disclosed to (a) granting bodies, (b) the editor or publisher of journals or other publications, and (c) the head of the responsible academic unit; and

(6) the original data are stored at the following location(s) and will be held for at least five years from the date indicated below:

Location(s)	Faculty of Education, Monash University, Clayton

Signature 1	N/A	Date
Signature 2	N/A	

Inclusive education in Bangladesh: Stumbling blocks on the path from policy to practice

Masud Ahmmed

Faculty of Education, Monash University, Australia

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Abstract

Inclusive education (IE) is an established paradigm around the world. Bangladesh has undertaken IE reform initiatives to achieve education for *all* children, irrespective of their individual differences, abilities and other socio economic conditions. Past studies showed that teachers are the primary stakeholders in the implementation of IE in classroom practices. Given the IE initiatives in Bangladesh and the findings of global studies, this study examines teachers' views towards the inclusion of students with disabilities in regular classrooms and investigates factors that might underpin these views. Focus group interviews provided data from twenty-two teachers working in government primary schools in the Dhaka division in Bangladesh. Thematic analysis of the interview data found that teachers were simultaneously sceptical about the success of full inclusion, yet supportive of inclusion from social and professional perspectives. The results identified a range of background factors inhibiting teachers' views towards implementing inclusionary teaching practices. Along with the research methodology and findings, the paper also focuses on the limitations of the study, implications and future research directions.

Keywords: Inclusive education; background factors; teachers' views, children with disabilities; primary education in Bangladesh

Introduction

"without a vision of how things should and ought to be, it is easy
to lose your way and give up in the face of adversity and opposition"
(Oliver & Barnes, 1998, p.102)

Across the world, "children with disabilities and many others who experience difficulties in learning are often marginalized within or, indeed, even sometimes excluded from school systems" (Ainscow & Haile-Giorgis, 1998, p.1). The inclusive schooling system has been introduced as a key strategy of the United Nations to educate all students, including those with disabilities, in mainstream classrooms with the aim of achieving equity of education at set target levels (Erten & Savage, 2012; Peters, 2007). International Declarations (e.g. the Salamanca Declaration on Special Needs Education 1994) and evaluative research in this field have impacted on educational policy reforms in both developed and developing countries over recent years (Rose & Forlin, 2010).

According to the principles of IE, " local schools should provide [equal educational opportunities] for all children, regardless of any perceived difference, disability or other social, emotional, cultural or linguistic difference" (Florian, Young & Rouse, 2010, p.709). As well as having unique general principles, inclusive education (IE) is context specific and is defined according to environmental factors (Ainscow, Booth, & Dyson, 2006). Hence, this paradigm has distinct interpretations at the intersection of developed and developing countries, despite the underpinning philosophy commonly aiming for "social integration and cohesion" (Armstrong, D., Armstrong, A., & Spandagou, 2011, p.29). While IE has transcended into a philosophical entity in Western lexicon, where it is seen as a maxim of a "social reform agenda" (Slee, 2008, p. 108) and a catalyst for creating social justice, fairness and equality in a diverse society, to developing nations IE is a means to address the systemic failure to include all out-of-school children in their mainstream education systems (Armstrong et al., 2011). Like many other developing countries in South Asia, Bangladesh, has taken the principles of IE on board in its education policies, acts, and programmes with the expectation of including *all* school-aged, out of school children, including those with disabilities, within the country's mainstream education system to achieve the milestone of Universal Primary Education by 2015, under the Millennium declaration popularly known as MDG 2 (UNDP, 2010). Recent policy and programme initiatives in Bangladesh have increased the number of primary students enrolled, including girls and students with disabilities (DPE, 2011a). Consequently, "teachers routinely encounter a wide range of students" in regular classrooms (Florian et al., 2010, p. 710). The heterogeneity of the classrooms in South Asian countries, including Bangladesh, has been reflected in recent UNESCO statistics demonstrating that South and West Asian countries have made significant progress in improving student enrolment rates, successfully reducing the number of out-of-school children by two-thirds from 39 million in 1990 to 13 million in 2010 (UNESCO Institute of Statistics, 2012). Global studies (e.g. Miles, 2009) reveal that teachers in developing countries are concurrently feeling the pressure of teaching increasing numbers of children with diverse needs, as "inclusion inevitably challenges schools to provide appropriate support for all children" (Forlin & Rose 2010, p.13).

The current situation in primary education in Bangladesh, therefore, compels close examination of teachers' attitudes regarding instructing students with disabilities within their usual classes and what are the influential dynamics of these attitudes. As it is recognized that "teachers are crucial characters in the schooling script" of enacting inclusive practices (Kozleski & Waitoller, 2010, p.659), such understandings of teachers' views and influences can only benefit inclusion programs in Bangladesh by better informing stakeholders. The few identified studies of IE in Bangladesh examined pre-service and in-service teacher attitudes and teaching efficacy, and reported these variables were, in turn, influenced by a number of demographic variables (e.g., contact with students with a disability, school support). However, those studies were based on self-reported survey questionnaires and lacked any in-depth understanding about either their views or underpinning factors (e.g., Ahmmed, Sharma, & Deppeler, 2013; Ahsan, Sharma, & Deppeler, 2012). Pertinently, a study conducted in neighbouring India reported that pre-service teachers held negative attitudes toward and a moderate degree of concern about, including students with disabilities in their regular classes (Sharma, Moore, & Sonawane, 2009). Given the above conditions, this study aims to address the following key research objectives:

1. To understand teachers' views towards the inclusion of students with disabilities in mainstream classrooms in government primary education in Bangladesh, and
2. To identify background factors teachers believe influence their views to include students with disabilities in their classrooms.

Overview of the context of the study

Bangladesh recognised the importance of universal primary education for all school-aged children in its national constitution (The National Constitution of Bangladesh) as early as 1972. Efforts to achieve this goal commenced in 1981 (MDG Bangladesh progress report, 2011) and gained impetus with the advent of global declarations dedicated to education for all and inclusive education (IE) such as the *World Declaration on Education for All* (UNESCO, 1990), the *Salamanca Declaration on Special Needs Education* (UNESCO, 1994), and the *Dakar Declaration* (UNESCO, 2000). However, like other South Asian countries, IE is still at its nascent stage in Bangladesh and the majority of school-age children with disabilities are yet to be included in the education system (Ahuja, & Ibrahim, 2006). The National Education Policy 2010 has recently been introduced to address the contemporary educational agenda, including IE. This policy tackles inclusion of diverse groups of children, including those with special needs/disabilities and those from ethnic communities and socio-economically disadvantaged sectors, in the existing mainstream education (MOE, 2010). To achieve the goals of providing quality primary education and equal opportunities for all children, the Third Primary Education Development Programme (PEDP3)[1] has been introduced (with an estimated budget of US$8.3 billion) to operationalize the National Education Policy 2010 by "identifying and minimizing barriers to children's participation in school" and "creating an inclusive culture based on the principle that all learners have a right to education irrespective of their gender, individual characteristics, or differences" (DPE, 2011b, p. 12).

Despite considerable improvement in student enrolments (e.g., now more girls attend school than previously), there remain a number of issues in enacting IE in classroom

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[1] The PEDP3 covers matters such as school infrastructure, teacher training, curriculum development, textbooks and teaching materials, school based responsibility, and classroom learning.

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practices (Mullick, Deppeler, & Sharma, 2012). A recent newspaper article reported that traditional schools, especially in rural areas outside Dhaka, were not keen to enrol students with disabilities because they lack suitably-trained teachers, appropriate teaching resources, disability friendly school environments and infrastructure ("Quota for Disabled Students" 2013). This is consistent with recent empirical studies in Bangladesh (e.g., Ahmmed et al., 2012, 2013) that found in-service teachers' attitudes towards the inclusion of students with a disability and teaching efficacy are influenced by teachers' perceived school support. Another study reported that pre-service teachers in Bangladesh have moderately high perceived teaching efficacy and positive attitudes towards implementing IE, even though they were concerned about the success of IE (Ahsan et al., 2012). The above situations inspired the current study in which the teachers' views towards inclusion of students with disabilities are explored, along with the factors influencing their views.

Methodology

This study was guided by the conceptual framework[2] of a broader study and the research objectives. As stated, the research objectives were to understand what teachers think and feel about their role in IE and why. To achieve these aims, data were gathered from the school teachers in Bangladesh using focus group interviews (FGIs). FGIs were considered appropriate since this method allows the researcher to "engage, understand and interpret the key feature of the life-worlds of the participants" and to uncover the "descriptions of specific situations and actions, rather than generalities" (Cohen, Manion, & Morrison, 2007, p. 355). Moreover, FGI is a well-recognised and frequently utilised method of data collection in academia and research.

Participants

Twenty-two teachers working in government primary schools within the Dhaka division in Bangladesh participated in FGIs. In Bangladesh, there are seven regional administrative divisions. To select participants for FGIs, the Dhaka division in Bangladesh was purposefully chosen. The main reason for this selection was that Dhaka is the central and most populous division of the country and would, therefore, best afford representation of schools located in urban city, semi-urban city and rural countryside locations. Four sub-districts were randomly selected: one from urban, one from semi-urban and two from rural locations in the Dhaka division. The quotient of sub-districts selected approximately corresponds to the ratio of the total number of sub-districts in these three locations. All government primary schools (293) located in these four sub-districts were included and all teachers serving in the schools received consent forms and explanatory statements about the study. A total of 169 teachers consented to participate in a FGI and sent their contact details

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[2] This report is part of a larger study which explored the predictors of teachers' intentions to include students with disabilities in regular classrooms in government primary schools in Bangladesh and conceptualised key variables (e.g., teachers' attitudes towards inclusion, teaching efficacy, perceived school support, and teachers' behavioural intentions to include students with disabilities in regular classrooms) within the theory of planned behaviour (Ajzen, 1991). While the findings from the survey data have been reported in a number of publications (e.g., Ahmmed et al., 2012; Ahmmed et al., 2013), this paper is specifically designed to provide an in-depth understanding of the teachers' views towards inclusion and the factors underpinning their views.

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to the author of this paper. Additional communications rendered 132 in-service teachers eligible for FGI participation (37 of those who initially consented either changed their mind or with whom further communication proved difficult at the time). Taking into account the participants' demographics, such as gender, location of the schools, age of the participants, and availability, a final total of 22 participants was deliberately selected: five from the urban sub-district, five from the semi-urban sub-district and six from each of the rural sub-districts (see Table 1). The aim of this calculated sampling was to *maximise* the diversity of the participants, not to achieve representation of the diversity of the country (Barbour, 2007).Therefore, this sample may not represent the full range of the population in Bangladesh.

Table 1
Details of Participants Selection Procedures for FGIs

Information about the selected sub-districts		Total no. of schools	No. of teachers who consented for FGI	No. of teachers who changed their mind/could not be reached	No. of teachers who finally agreed	No. of teachers finally selected for FGI
Location	Number					
Urban	1	17	52	12	40	5
Semi-urban	1	116	61	8	53	5
Rural	2	160	56	17	39	12 (6+6)
Total	4	293	169	37	132	22

Demographics of the selected participants

Among these twenty-two participants, fourteen (n=14) were female and eight (n=8) were male teachers. The age of the participants was between 24 and 53 years. A total of eight (n=8) participants had below Bachelor qualifications while eight (n=8) and six (n=6) participants had Bachelor and Master degree educational qualifications respectively. Teaching experience of the participants was between 1 and 26 years. The majority of the participants (n= 12) had previous experience in teaching a student with a disability and a majority (n=16) also had participated in short training in IE.

Data collection procedure

Prior to data collection, ethical approval was obtained from the university Ethics Committee in Australia where the study was undertaken and permission for data collection was given by the Directorate of Primary Education in Bangladesh. The researcher (author of this paper), with the cooperation of respective sub-districts' Education Offices, arranged a venue for the FGIs at the premises of the Education Office at each sub-district, after giving due consideration to its convenience for participants. The dates and times of the FGIs were fixed according to their suitability for participations.

Setting the scene for FGIs

To establish rapport between the researcher and the participants, and among the participants themselves, and to facilitate a lively and comfortable discussion, there was an informal ice-breaker at the commencement of the four FGIs (Barbour, 2007). The researcher provided refreshments, as a way of showing gratitude to the participants and creating a relaxed atmosphere for the FGI. The discussion was guided by a semi-structured interview protocol. However, the participants were freely allowed to change the order of the questions and offer added additional information to suit the discussion (Johnson & Christensen, 2012). Each of the participants in a FGI was asked the same questions but it was open for them to agree, disagree or add their opinion at any stage of the conversation. All the FGIs were conducted and moderated by the researcher, in Bangla language, the first language of both the participants and the researcher. The author conducted FGIs in four different sub-districts on separate dates. The duration of each of FGI session was approximately 45-60 minutes. With the permission of the participants, each of the FGIs was audio-recorded.

FGI protocol

A set of guiding questions for the FGIs were developed over a piloting process including initial review by three educators acquainted with primary education and IE in Bangladesh and content validation in Bangladesh before employed for data collection. The FGI guided questions are as follows:

1. What are your views about the inclusion of students with diverse needs/disabilities in the regular classroom?
2. How confident do you feel in teaching students with special needs/disabilities in regular classrooms?
3. What kind of support (e.g. material/human) do you feel you are receiving (or not receiving) for implementing IE in your regular classrooms?
4. What are the factors you think influence whether you include/do not include students with special needs/disabilities in regular classrooms?
5. What are the barriers to including children with special needs/disabilities in regular classrooms?
6. If you have any additional information/suggestions, please specify.

Data transcription and translation

The researcher transcribed the audio data. To enhance internal validity (Creswell & Plano-Clark, 2007), the transcribed data was shared with the participants of each FGI group by mail and necessary changes were made, if required, according to their suggestions. Two independent translators who were almost equally expert in both languages were asked to translate the data from Bangla to English. The researcher then reviewed and compared these two sets of translated data and, if any discrepancies were found between these two sets, discussed them with the translator before reaching a final version of the translation (McGorry, 2000).

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Data analysis

The analysis of FGI data involved the following steps in identifying the final themes, as recommended by a number of authors (e.g., Braun & Clarke, 2006, p. 87; Creswell, 2002, p. 266; Liamputtong, 2011; Thomas, 2006):

➢ The researcher thoroughly read and reread the transcribed data several times.
➢ Sections relevant to the research objectives were selected and assigned codes[3].
➢ The codes were revised to reduce overlap and repetition.
➢ The codes were organised into themes by grouping those with similar topics (across the FGIs).

In the discussion, these themes are clustered to correspond with the aims of the study. To achieve internal validity of the generated themes (Creswell, 2002), two researchers were asked to review the process of data analysis (i.e., initial coding to the final themes). After discussions with the reviewers for clarification of the feedback, the author further, and finally, refined the themes. So, the data analysis involved reading the transcribed data a number of times for complete understanding, selecting the important text for coding, checking the codes for overlap, merging the codes and developing the themes.

Findings

The findings of the data analysis are discussed under the headings of the two key research aims of understanding teachers' views and the background factors underpinning their views on including children with disabilities in regular government primary school classes in Bangladesh.

Teachers' views towards inclusion

Some of the themes associated with the views of teachers towards inclusion of children with disabilities are consistent with the idea of IE as being unrealistic and with their intentions being tied to notions of responsibility. They are discussed individually, under the latter-mentioned categorisations.

IE as unrealistic

Teachers are sceptical about full inclusion

The majority of the participating teachers expressed pessimistic views about the success of IE in the regular classroom, given the inadequacy of existing facilities such as support services, resources and training. Consequently, many thought that, currently, special schools might provide better educational opportunities for students with a disability than ordinary schools. As one teacher says:

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[3] Initially, codes were developed individually in different FGIs but, as themes presented, coding occurred across the FGIs.

> I believe that if these children [with special needs] are given education at special schools, they will get "proper" and better education. If we teach them here, there are many problems [such as] lack of instructional resources and specialist teachers. (TS4)

However, they acknowledged that segregated education might trigger isolation and deprive students of the benefits of social inclusion.

Not fully confident to implement IE

Almost all of the participating teachers were found to lack full confidence in implementing IE. This low confidence was associated with a lack of teacher training, limited resources, and limited infrastructural facilities. The following extracts reveal the depth of their feelings about their teaching effectiveness in the circumstances:

> Sometimes I feel very helpless and wish I were trained enough so I could do something for those children ['s learning]. (TSK2)

> It's really difficult for me to manage everything single handed. There are 38 children in my class, right now. [In this situation] for a single teacher, it's impossible to meet individual [learning] needs of every student. (TM2)

> I have a mentally challenged student. He is 'fine', but if I leave him and go to another student, he starts disturbing other children. This [experience] made me concerned how I will face this issue. (TSK2)

IE as responsibility

Teachers are willing to include students with disability

Most of the participating teachers indicate they support the principle of IE personally, feeling social responsibility as a conscious citizen of society: they felt the inclusion of children with a disability in local schools was needed to provide, at least, some educational opportunity for them, since there was no other special educational arrangement for those children. One teacher felt:

> While I see in my village that children with disabilities do not go to school and have no opportunity to get the 'light of education', I question myself: Where will they go if we do not allow them to come to the nearby school? (TS3)

One teacher's optimism about IE expands the idea of social responsibility beyond simply providing quality education for children with disabilities:

> One student who couldn't speak well, I saw that, when he started coming to this [regular] school and mixed with 'normal' students, his speaking ability improved a lot. That experience inspired me. I think that if a student with a difficulty [impairment] comes to the regular school, the association with other normal students helps to overcome the problem [difficulties/disabilities]. (TSK 5)

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Teachers also support the principle of IE professionally, under the national education policy drive: teachers specifically mentioned that they were instructed by the Education Department to execute IE:

> Thana [sub-district] Education Office always says: "You have to bring all children including those with disabilities from the nearby locality to achieve 100% enrolment" but they do not tell us how to teach them… We try our best to respond to this government order. (TT1)

Background factors

The study identified background factors playing a role in teachers' views of inclusive education. They are discussed as follows:

Cooperation from major stakeholders

School community

Almost half the participating teachers mentioned the currently available assistance from the school principal and fellow colleagues was insufficient to enable them to successfully implement IE. All of the participants commented that they did not receive cooperation from their school management committee in introducing IE in the school, if it involved allocation of funds, such as for purchasing instructional materials. However, the discussion paved the way to a possible solution to this challenge. In the semi-urban and one of the rural sub-district FGIs, a number of participants mentioned how important conversations amongst the school community are. For example, one participant said:

> I think it is necessary to have a dialogue with parents, local community, and the school management committee. We do not discuss this issue with our colleagues, principals and parents. (TS6)

Family of the students

During the interviews, almost half of the teachers emphasised the need for collaboration with local parents of students, not only those whose children have a disability but also those whose children do not.

A majority of the participants of two sub-districts (urban and one rural) felt most of the parents of children with disabilities who were from poor economic backgrounds did not show support for education for their children. They believed some parents used their (disabled) children to earn money through begging on the street. As one said:

> Many parents believe that if a child with a disability begged on the street he/she could earn 300 to 400 Taka per day. So, the parents with poor economic conditions do not want to send their kids with disabilities to the school; rather, they use them for earning money [through begging]. (TM5)

Some teachers further reported that many parents of children with disabilities did not know that their children could get their education at neighbourhood regular schools. The majority of teachers (across the locations) also commented that most parents of students without a

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disability expressed support for administering IE and did not oppose inclusion. However, participants of one rural sub-district informed that some parents did show concern about their children sitting next to a student with a disability in a classroom:

> Many parents do not allow their kids to sit next to a student with a disability, or children from the bede community [nomadic population] and sex workers. (TSK1)

Resources

The results showed that all of the participating teachers were facing problems in implementing IE due to a lack of available instructional and human resources.

Instructional resources

Majority of the teachers across the locations mentioned that they did not have adequate teaching resources, or an inclusive, education-friendly teaching curriculum, to help them achieve IE. They felt that the major cause of their struggle to implement IE practices in regular classroom was this lack of instructional resources (e.g. flexible teaching curriculum, appropriate writing board, braille). Helplessness of the teachers was reflected in the following statement by a FGI participant teacher:

> I am struggling to handle [students with a disability] with my present limited teaching resources. (TSK3)

Teachers' frustration due to teaching resource constraint has been echoed in the words of another participant:

> In my classroom we have a fixed black board. There are two students with low vision problems. I can't help them reading while I write on the blackboard. If we had an 'automatic board' [digital], I think they would not face the problem (TSK5)

Teachers do not have any technology-supported instructional resources to accomplish IE in the classroom, making the fulfilment of IE very challenging. They also suggested that the current teaching curriculum needed to be made more flexible for all students as they felt it was difficult for some students with disabilities and special needs to cope with.

Human resources

Teachers indicated that they needed to receive greater cooperation from both outside (e.g., principal, SMC, colleagues, specialist teachers, parents) and inside the classroom (e.g., teaching aide). Teachers' perception of the importance of human resources for implementing inclusive practices can be seen in the following remark of a participant:

> We need specialist and trained teachers who can support us. In this school we don't have a special needs teacher. (TS6)

The teachers found IE particularly demanding without such support. They also suggested some possible strategies to surmount this situation, such as there be an

official requirement to have one special needs teacher (e.g. Special Need Coordinator) assigned to clusters of schools to train/advise classroom teachers.

Training in IE

In-service training in inclusive education was found to be one of the most significant issues for the teachers. The findings revealed that almost all of the teachers regarded such training as instrumental in accomplishing IE successfully in their classrooms. However, existing training was thought to be quite inadequate, notably the absence of hands-on training. Teachers' concerns about the need for training are revealed in the following extracts:

> I am not trained. I do not know how to [teach] these kids with special needs or disabilities, especially children with a speech impairment. I don't understand what that student [with speech impairment] wants to say. I can't teach him well as he can't hear me well. (TS2)

Another teacher added:

> I do not know how to teach [students with disabilities] properly. In the training I leant about basics of IE. [The training] was very short. For perfect teaching I'm not really ready. I am teaching because I have to teach them as a part of my job. … I have been given the responsibility to teach all kids, I do teach… (TT3)

IE friendly school environment

To the majority of these teachers, a disability-unfriendly school environment is one of the important causes affecting the implementation of IE in the classroom. They revealed that buildings did not have disability-friendly access. Crowded classrooms and inadequate resources created a challenging situation. The following words of the teachers bear testimony to this complaint:

> We do not have ramps; if a student comes with a wheelchair he/she can't enter the school [premises]. It's not wheelchair access friendly. (TSK4)

> Our school [infrastructure] needs to be modified for disabled people. At present, it is not at all suitable for [students with disabilities]….[The reason is that] all the construction of the school buildings was done a long time ago. It will take time to bring a change. (TT4)

Class duration

The study found that almost half of the teachers considered their current class duration to be too brief to implement IE[4]: teaching students with a disability was more time

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[4] Interestingly, teachers from the urban sub-district did not express this concern.

consuming than teaching students without a disability. With large student numbers and short class duration, the teachers could not spend time equitably or adequately with every student in an inclusive classroom. They asserted that:

> Sometimes we can't spend extra time for these students because of our short "class time". (TS3)

> Our class time is only 35 minutes. How can I handle those children [having special needs] with extra care alongside 60 to 70 other [students without disability] within this [short] time? (TSK3)

Discussion

Thematic analysis of the interview data found teachers' views put them in a dilemma – they were simultaneously sceptical about the success of full inclusion, yet supportive of inclusion from social and professional perspectives. The participants candidly admitted a sense of professional inability to implement inclusive practices successfully with the currently available facilities in the school. At the same time, they supported inclusion on the basis of social responsibility and empathy towards children with disability and professional obligation to implement IE. Underpinning factors inseparable from teachers' views towards inclusion were: the lack of support from the school community, extremely limited resources, inadequate teacher training, insufficient class time, parental non-cooperation, and disability-unfriendly school environments.

The data related to teachers' views towards inclusion signify that teachers were cognizant of their system-related inability to address the needs of an IE classroom. Yet they were, simultaneously, emotionally motivated to support the inclusion process, to contribute to the local community and society and they held a highly professional sense of the need to carry out the order of the Education Department to ensure the agenda of enrolling all school-aged children, including those with disabilities. This finding is supported by international studies (e.g. Koutrouba , Vamvakari, & Theodoropoulos, 2008; Nilholm, 2006) which indicate that, in spite of having low levels of teaching confidence and expertise in special education needs, the majority of teachers are keen to support the principles of IE and demonstrate favourable attitudes towards inclusion of students with disabilities, from inherently humanitarian ideals. The views of the teachers in Bangladesh towards inclusion of students with disabilities in their classrooms might be interpreted from the philosophical viewpoint of Barton (1997) that "[inclusive] educational issues are complex and contentious often involving passionately held beliefs and values" (p. 231).

However, findings related to the factors behind teachers' views imply that a number of issues (i.e., lack of support from the school community, extremely limited resources, inadequate teacher training, insufficient class time, parental non-cooperation, and disability-unfriendly school infrastructure) impede teachers' intentions towards inclusion. This finding is consistent with a study by Koutrouba, Vamvakari, and Steliou (2006), which suggests that successful implementation of IE in schools, depends mainly on the willingness of teachers and factors such as infrastructural adequacy, prejudice and skills in addressing special needs. Similar views were evident in another study (i.e., Rakap & Kaczmarek, 2010) which suggests

that "more conducive classroom environments and more personnel and material support" might make teachers' approaches more favourable toward inclusion (p.72).

The findings that have been discussed in terms of the stated aims of this study are consistent with, and complementary to, two recent studies in Bangladesh which revealed teachers' positive attitudes towards inclusion and greater teaching efficacy were associated with their perception of having human and material resources and support from the school community (Ahmmed et al., 2012, 2013). These findings are also endorsed by a recent global study which found that, while the majority of teachers supported the 'philosophy of inclusion', only a small percentage had "adequate conditions (skills, time, and resources)" to implement IE in their classrooms (Chiner & Cardona, 2012, p. 14). This study reported teachers' willingness to undertake IE was inevitably associated with skills, resources, and supports (ibid).

In light of the findings of the current study, stakeholders of IE in Bangladesh (including PEDP3) would be well advised to ensure teachers perceive they are (adequately) supported by their school community, including colleagues, school principal, parents of all students and school management committee, as such perception improves their teaching efficacy and positive attitudes towards inclusion (Ahmmed et al., 2012, 2013). Therefore, teacher training programs for IE under PEDP3 should consider creating a culture of collaboration among members of the broader school community to secure teachers' successful implementation of IE. International research (e.g., Deppeler, 2012; Loreman, 2007; Loreman, Deppeler, & Harvey, 2010) supports such collaboration as an effective means of improving teachers' professional skills. Teacher educators should develop "*evidence-based* inclusive pedagogies for preparing teachers to become effective inclusive educators" (Forlin, 2010, p. 649, emphasis added). For this, further study is warranted to determine a suitable model and to assess the effectiveness of such intervention in the Bangladesh context. From these findings, it can be argued that PEDP3 needs to provide resources, both human (e.g. teacher aides, special need teachers) and material (e.g. teaching curriculum, special needs equipment, infrastructural) within Bangladesh's logistic, cultural and economic limitations. Experience from two studies in the Asian context (i.e., Alur, 2007; Kalyanpur, 2011) provide encouragement in this regard. Alur, referring to India, argued that inclusion can be achieved with limited resources, provided that "there is a commitment to do so and a continuum of support given in the right spirit" (2007, p.104). Kalyanpur (2011, p.1067) also emphasised the "effort to identify or utilise local, low-cost resources" to implement IE in developing countries such as Cambodia. These studies provide an optimistic response to earlier studies (e.g., Evans & Lunt, 2002) which focussed on teachers' scepticism about the success of full inclusion, given their lack of resources and negative attitudes of major stakeholders.

This study's findings showed that one of the significant issues that concerned the participants was that the school management committee (SMC) did not stand behind teachers when a request for support involved local funding. In order to ensure support from the school community, PEDP3 should empower schools' leadership by delegation of authority. Ainscow and Sandill (2010) advise sanctioning school level leadership to ensure effective community involvement for IE enactment. However, to fully understand the (non-supportive) attitudes of SMCs and consequences of jurisdictions of school leadership, further in-depth study is required.

Findings about the uncooperative attitude of some parents from poor backgrounds who have children with disabilities need attention from educational policy makers and

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development partners (e.g. World Bank, ADP, and UNESCO). Poverty and education of children with disabilities in developing countries is a chronic issue discussed in many studies (e.g. Elwan, 1999; Miles, Fefoame, Mulligan, & Haque, 2012; Rousso, 2003). However, the recent success story of a 'food for education' program in Bangladesh that increased student's enrolment in primary schools (Sukontamarn, 2013) indicates that a reasonable incentive, both for the family and the school, might encourage attendance by children with disabilities. This issue needs further investigation to understand the actual causes of the lack of cooperation from parents with a child/children with disabilities.

The results show that noticeable variations among issues raised at the differently-located FGIs were mainly the *cooperation of the parents with child/children with a disability* and *class duration*. Specifically, participants from the urban and one rural sub-district perceived that the majority of the parents of children with disabilities with disadvantaged economic backgrounds did not support the education for their children. Participants of one rural sub-district expressed that some parents of a child/children without a disability showed concern about their children sitting next to a student with a disability in a classroom. The study also found that almost half of the participants across the FGIs, except the urban sub-district, considered their current class duration of insufficient length for adequate employment of IE practices.

Conclusion

Bangladesh has undertaken policy initiatives in order to educate all school-aged children in its mainstream education system. In order to implement the policies into classroom practices, the government has recently introduced the Third Primary Education Development Programme (PEDP3). The objective of PEDP3 is to ensure an inclusive and equitable primary education system to all students, irrespective of their individual differences and physical and learning abilities or disabilities. The priority areas of the project include achieving outstanding results in learning outcomes, participation, reducing disparities, decentralization, effective use of budget allocations, and program planning and management (DPE, 2011a). Considering the findings of this study and the other studies discussed above, the stakeholders of PEDP3 are recommended to undertake effective measures to

- ensure adequate support from the school community for classroom teachers,
- provide needs-based instructional and human resources,
- provide appropriate and needs-based teacher training,
- revise the teaching curriculum,
- extend class time, and
- make the school and classroom environment IE friendly.

In doing the above, it is essential "to contextualise models of support", considering the children's and teachers' needs and the availability of resources (Forlin & Rose, 2010, p. 13), and to follow a well-informed plan (Rose & Coles, 2002).

Since Bangladesh is a developing country with limited resources, it must maximise the utility of available resources. For example, it might be economically viable, sustainable and useful if parents of students with a disability undertake the role of teacher aide and schools recruit at least one special needs specialist/coordinator in each sub-district to "provide professional guidance and support for the regular class teacher" (Forlin, 2001, p. 83). Despite the effectiveness of this kind of professional support in many countries, it requires

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considerable investigation for contextual applicability (Rose & Forlin, 2010). Therefore, a longitudinal study is warranted to determine the ingredients, events and causes that might positively impact on teachers' attitudes towards inclusion, involving both teachers and students as participants.

There are a number of limitations to this study. The findings were drawn only from focus group interviews which might not give a complete or factual reflection of the situation. Moreover, the participants were selected only from four sub-districts in Dhaka Division which did not cover the full diversity of the country, such as the tribal population, hill districts, or coastal and islands regions. Readers are, therefore, advised to consider these limitations when drawing on the findings of this study. To understand the differences of the views towards inclusion and the underpinning factors, further study with larger samples across more divisions of Bangladesh is required.

In developing countries such as Bangladesh, IE is in an early stage and has been employed as a strategy to include all students, including those with disabilities, in regular classrooms. Developing countries could well take a lesson from the about-turn of Lady Warnock in her pamphlet called *Special Educational Needs: A new look* (Warnock 2005). She previously advocated in favour of education of children with disabilities in regular schools in the famous Warnock Report (1998) but now has turned against it, not being satisfied with the quality of education currently provided to children with special needs in these regular schools. Certainly IE can be an effective approach if implemented efficiently. Harvesting benefit from this approach needs a steady vision, a pragmatic mission, a context based approach and remedial measures, otherwise it is easy to "lose" and "give up in the face of adversity and opposition" (Oliver & Barnes, 1998, p. 102). It is a great advantage that Bangladeshi teachers are emotionally motivated and professionally committed to support inclusive education, despite adversity in the form of scarcity of support and unfavourable circumstances.

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As stated in the introduction to the thesis, this study conceptualised all of the major variables (i.e., teacher attitudes, teacher efficacy and perceived school support) within the Theory of Planned Behaviour (TPB). In accordance with the research objectives, the theoretical and the methodological framework of the study, the first paper of this chapter (Paper 2) was used to determine the predictors of teachers' attitudes towards inclusion of students with disabilities. Following previous research and current discourses in the field of IE and taking into account the contextual situation of IE reform in Bangladesh, this study considered teacher attitudes towards inclusion to be an important research domain for understanding the progress and challenges towards implementing IE in primary education in Bangladesh. Investigating the influences of demographic and perceived school support variables on teacher attitudes, Paper 2 laid the groundwork towards understanding the individual variables, as well the systematic structure between the conceptualised TPB variables (i.e., teacher efficacy, perceived school support and teacher behavioural intentions). In keeping with the framework of the TPB[8], Paper 2 is positioned at the beginning of this chapter.

By examining the influences of background factors and perceived school support on teacher attitudes towards inclusion, the study found that there is a significant association between teachers' attitudes towards IE and a number of demographic variables (e.g., previous success in teaching student with disabilities or contact with a student with a disability), and between teachers attitudes and perceived school support. The paper presented the findings which were, then, critically explained and compared with other contemporary empirical studies and discourses. This paper worked as a lens through which to understand the predictors of teachers' attitudes towards inclusion in the context of IE in primary education in Bangladesh, by exposing, specifically, the

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[8] See Chapter 1 for details of the theoretical framework of this thesis

attitudes of in-service teachers employed in government primary schools in Dhaka Division. This study endorsed teacher attitudes as an important variable to be examined in order to understand the challenges towards IE in Bangladesh, where IE has been a priority in primary education development programmes (e.g., PEDPIII). Focusing on teacher attitudes as one of the TPB variables, Paper 2 imparted significance to this chapter as well as the thesis.

Similarly, Paper 3 was included to focus on another variable, teacher efficacy, and aimed to uncover the influences of background variables and perceived school support on this variable. Specifically, Paper 3 reported that teacher efficacy to implement inclusive practices in primary education in Dhaka Division in Bangladesh can be predicted by a number of demographic variables (e.g., teachers' acquaintance with a person with a disability outside the classroom, past success in teaching a student with a disability) and teachers' perception of school support for implementing IE practices. This paper documented teacher efficacy as a key variable for understanding the progress and success of IE practices internationally as well as in Bangladesh, and identified predictors of teacher efficacy in the Bangladesh context. This paper is important in this thesis because it paved the path towards further understanding of the association of teacher efficacy with outcome variables of the TPB model (i.e., teachers' behavioural intentions to include student with disabilities in regular classrooms). It also served as a catalyst for greater understanding of the level of teacher efficacy and its relationship with teacher attitudes.

In light of the arguments and findings of Papers 2 and 3, it seems plausible that a number of variables - teacher attitudes towards inclusive education, teacher efficacy to implement inclusive practices, and perceived school support for inclusive education - are highly influential when enacting inclusive education in classroom practices in

Bangladesh context. Like Paper 1, these Papers 2 and 3, individually, focus on the major variables whilst Paper 4 examined all these variables together, within the framework of Theory of Planned Behaviour, and shed further light on each of the variables examined in Papers 1, 2 and 3. Thus, Paper 4 provided an understanding of the individual and collective contributions of each of these variables (i.e., teacher attitudes, teacher efficacy and perceived school support) in explaining the variance in teachers' behavioural intentions to include students with disabilities in regular classes. In particular, it elucidated how each of these variables was conceptualised within the TPB model and reported the predictive utility of them on teachers' behavioural intentions to include students with disabilities in regular primary schools in Bangladesh. Along with these three predictor variables, this paper also investigated and reported the influence of demographic variables of the teachers on their intentions towards inclusion. The study reported in paper 4 found that the behavioural intentions of the teachers employed in government primary schools in the Dhaka Division are associated with positive attitudes of the teachers towards inclusion, greater teacher efficacy and higher perceived school support. In other words, while Papers 1, 2 and 3, have established the significance of the set of three variables - teacher attitudes towards inclusive education, teacher efficacy to implement inclusive practices, and perceived school support for inclusive education with regard to IE enactment – Paper 4 combined all the variables and examined their contribution to teacher behavioural intentions towards inclusion because, from the individual studies of perceived school support, teacher attitudes and teacher efficacy, it seemed appropriate to understand the collective as well as individual roles of these variables in teachers' intentions towards inclusion. Paper 4 can be regarding as centring the thesis from a theoretical, methodological and contextual perspective. It highlighted the importance of the key variables (teacher attitudes, teacher efficacy and perceived school support) in the context of this thesis and identified the predictors of teachers'

intentions to include students with disabilities in regular primary schools in Bangladesh. From an epistemological point of view, this study underlined the usefulness of the TPB model when examining the progress of IE implementation in a developing country like Bangladesh.

All results reported in Papers 1, 2, 3, and 4 were drawn from the survey data. Paper 5 served to elicit further details for understanding teachers' behavioural intentions towards inclusion and other variables (e.g., perceived school support) through focus group interview data. It examined the views of teachers towards inclusion and the factors behind their views. It is important to note that the focus group interview data were gathered from members of the same population in which the survey was conducted. Seeking comprehensive understanding about the variables investigated within the TPB framework (Hsieh et al., 2012), and knowledge of teachers' views towards inclusion and the background situation underpinning these views, Paper 5's analysis supplemented the survey questionnaire findings with the focus group interview data. The Theory of Planned Behaviour provided the freedom to combine both quantitative and qualitative approaches (e.g., Lambe, 2011). This paper reported that teachers' views about inclusion of students with disabilities place them in a dilemma. Whilst they professed a professional incapacity to implement inclusive practices successfully in the existing situation, they still supported inclusion, being motivated by both social responsibility and professional obligations. It also revealed the background causes that underpin teachers' decisions about inclusion. These findings complemented the findings from the survey with additional knowledge about factors inhabiting the conditions of the variables (e.g., perceived school support), and their relationships. Combining the results gave a contextual interpretation enabling deeper meanings and

understanding[9]. Blending the findings of the survey and the FGIs might provide a comprehensive outline not only of the predictors of teachers' behavioural intentions towards inclusion of students with disabilities in their classrooms but of other associated conditions (e.g., teachers' perception of school supports, teacher attitudes towards inclusion and teacher efficacy to implement inclusive practices), with regard to IE enactment in classroom practices in primary education in Bangladesh.

From both applied and methodological perspectives, this paper's value in the thesis is that it provided an additional window through which to uncover the 'facts behind the facts'. It explained teachers' views about inclusions and apprised background factors in teachers' decisions about inclusion.

Thus, all these papers which individually focused on a single aspect of the thesis are also connected and directed towards the objectives of the broader study. Hence, each of the papers is unique for its own focus and meaning yet, at the same time, has collective meaning and cohesion and is intertwined within the thesis, according to theoretical, methodological and thematic considerations (see Figure 4).

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[9] See the integrated discussion in Chapter 5.
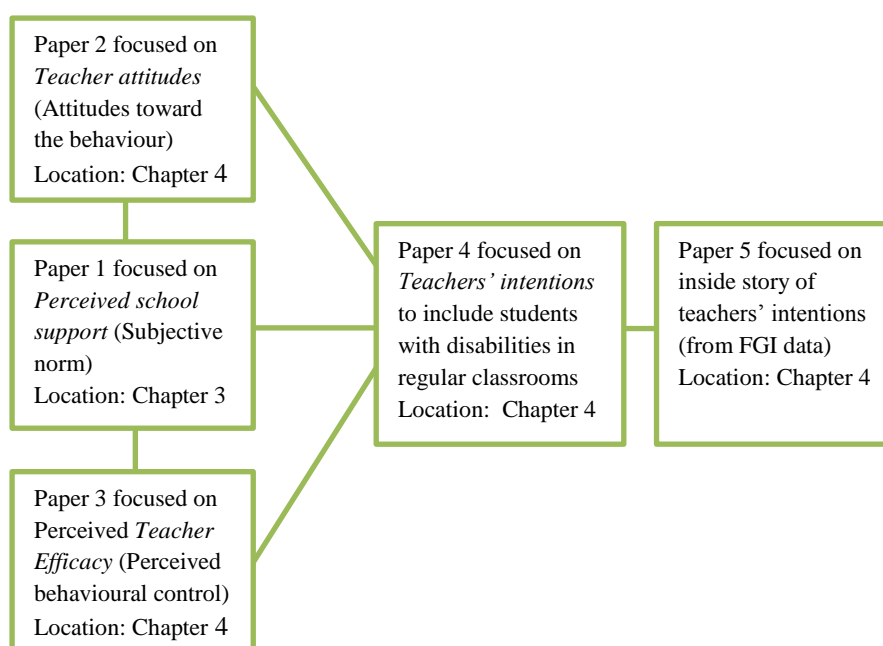
Figure 4. Positions of the papers in the thesis, linked by the theoretical framework, methodology and objectives of the study

The research questions, results of data analysis and findings which were not included in the above papers have been reported in the following section:

Teacher Attitudes, Efficacy, Intentions and School support: Levels and Relationships

The following focuses on the research questions, results, and findings of the study that have not been included in Papers 2, 3, or 4.

Within the scope of above papers, all research questions related to the survey data could not be included. Hence, this section is directed towards examining the levels of teachers' attitudes, teacher efficacy, perceived school support and teachers' intentions, and the relationship between teachers' attitudes and teacher efficacy and, thereby, contributes towards resolving the following research questions:

1. What are the existing levels of teacher attitudes towards inclusion, teacher efficacy to implement inclusive practices in classrooms, perceived school support for implementing inclusive practices in the classrooms, and teachers' intentions to include students with disabilities in regular classrooms in primary education in Bangladesh?

2. Is there any significant relationship between teacher efficacy and teachers' attitudes towards inclusion of students with disabilities?

This section substantiates the thesis by providing the status of these variables in the context of primary education in Bangladesh and indicating the association between two very important variables in the thesis - teacher attitudes and teacher efficacy. This extends the previous papers, inasmuch as it revolves around the same variables contextualised in those papers and uses the same data, but it expands the focus considerably (see Paper 4 for information about data collecting instruments and participants) .

Data analysis procedures.

Descriptive statistics, such as Mean and Standard Deviation, for item statements for all of the four instruments were calculated by using SPSS (version 19) to determine the levels of the variables of teacher attitudes towards inclusion, teacher efficacy, perceived school support and teachers' intentions to include students with disabilities. Pearson product-Moment correlation was performed to detect any association between teacher efficacy and teachers' attitudes towards inclusion.

Results.

Data analysis, with regard to levels of the variables, showed that the overall mean score for each item of the perceived teacher-efficacy using the TEIP scale was 4.78 (SD=1.01). A score close to value 5 on the TEIP scale indicates the teachers 'agreed' with the statements measuring respondents' sense of teacher-efficacy towards IE. Thus, it was indicative that in-service teachers who participated in this study had moderately high levels of perceived teacher-efficacy to undertake inclusive teaching practices. Assessment of teachers' attitudes toward inclusion of students with disabilities revealed an overall mean score for the items on the SPATI scale of 2.73 (SD=1.01). Here the value 3 represents 'neither agree nor disagree' (neutral). The results show that the level of attitudes of the teachers in the study was close to the neutral level. On the other hand, the mean score for statements on the PSSIE scale was found to be 2.41 (SD=1.29). Here, level 4 indicates that the respondent teachers receive adequate support. This score was much lower than 4 which indicated that the respondent teachers regard the supports they receive as inadequate. With regard to teachers' intentions to include students with disabilities, the result showed that the overall mean score of the item statements on the MATIE scale was found to be 3.89 (SD=1.27). With this scale, the value 5 stands for 'agree', meaning respondents are fairly positive towards inclusion of students with disabilities. However, the value M=3.89 is close to 4 which represents 'somewhat agree'. This suggests the respondent teachers face a dilemma.

Prior to calculating correlations to examine the relationships between teacher efficacy and teacher attitudes, a scatter-plot graph was generated to ensure there were no violations of the assumptions of linearity and homoscedasticity (Pallant, 2010). It appears that no violation of assumptions of linearity and homoscedasticity occurred.

This (scatter-plot) further suggests that there is a moderate, positive correlation between teachers' attitudes and teacher efficacy to implement inclusive practices. The results of Pearson product-moment correlation showed that there was a correlation between the two variables [$r=.14$, 708, $p<.0005$], where high levels of teacher efficacy is associated with elevated levels of teacher attitudes.

In summary, the results showed that the in-service teachers had moderately high levels of perceived teacher efficacy to perform inclusive practices. On the other hand, teachers' attitudes toward inclusion of students with disabilities were found to be close to the neutral level (neither positive nor negative) and certainly below the level of positive attitudes. Regarding teachers' perception of receiving school support for inclusive practices, it was found that they felt the support they receive was inadequate. Interestingly, their intentions to include students with disabilities were found to be close to (slightly below the level of) 'somewhat positive' towards inclusion. The study also found that a high level of teacher efficacy is related to higher levels of teacher attitudes.

Chapter 5

Discussion

This chapter summarises and discusses the major findings that have emerged

from the studies, as reported in the preceding chapters, to draw connections with the

major research aims of the study and relevant research literature. It reflects on the

foremost contributions of the study to the field of inclusive education, presents the

implications of the study, makes recommendations for future research, and

acknowledges limitations of the study. It is followed by a paper focusing on

implications for the Bangladesh education sector that included data from two other

doctoral studies.

One of the chief aims of this thesis was to explore the predictors of teachers'

intentions to include students with disabilities in regular classrooms in primary schools

in Bangladesh[10]. The study also set out to examine the influence of demographic

variables and perceived school support on the variables of teachers' attitudes towards

inclusion of students with disabilities and teacher efficacy to implement inclusive

practices. It undertook to determine the status of these variables in government primary

schools in the Dhaka division of Bangladesh, and to examine whether there are

associations between teacher attitudes and teacher efficacy. Further, the study

investigated the views of teachers towards inclusion and explored the background

factors underpinning teachers' meanings.

The overall findings of this thesis indicate that teachers' behavioural intentions

towards inclusion are influenced by their attitudes, teacher efficacy and perceived

school support. Teachers' attitudes and teacher efficacy are, themselves, influenced by

perceived school support and a number of background variables including teachers' past

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[10] Limited to government primary schools in Dhaka Division of Bangladesh

success in teaching students with a disability and contact with a student with a disability in the classroom. The perception of school support has consistently been a powerful predictor across the variables (i.e., teachers' intentions, teacher attitudes, and teacher efficacy). It has also been found that teacher attitudes and teacher efficacy positively correlate with each other. Results from the survey data further revealed that, in general, teachers reported a (close to) neutral level of attitude towards inclusion of students with a disability, a moderately high level of perceived teacher efficacy, a lower level of perceived school support and close to 'somewhat positive' level of behavioural intention to include students with disabilities in their classrooms. Focus group interviews (FGIs) - provided further insights to these teacher variables with details of teachers' views about inclusion and the factors underpinning their views. FGIs found that teachers' positions towards inclusion was inconsistent: teachers candidly admitted a sense of professional inability to implement inclusive practices successfully and were sceptical about the success of full inclusion with the currently available facilities in the school, but they supported inclusion on the bases of social and professional idealism. They attributed this to a number of issues that influenced their intentions (e.g., lack of support from the school community, extremely limited resources, inadequate teacher training, insufficient class duration, parental non-cooperation, and disability-unfriendly school environments).

There are many empirical studies in the field of inclusive education (e.g., Little & Evans, 2012; Sharma et al., 2012) that highlighted the importance of teacher attitudes (e.g., Beacham & Rouse, 2012; de Boer et al., 2011), teacher efficacy (e.g., Tschannen-Moran & Hoy, 2001) and teachers' perception of support and resources (e.g., Villa et al., 1996) as predictor variables affecting the success of inclusive schooling strategies. The majority of those studies were conducted in Western contexts. This is not surprising since inclusion as a focus in education began in Western, well-resourced countries (e.g.,

US and Europe) more than four decades ago (Ferguson, 2008) while Inclusive

Education is a relatively new approach in the majority of developing countries (Sharma,

Forlin, Deppeler, & Guang-xue, 2013). It is likely there are variations and differences in

the status of relationships among the abovementioned teachers' variables across cultural

and social contexts (Cardona, Florian, Rouse & Stough, 2010). Because of the recency

of the practice of IE in regular schools in developing countries, particularly in

Bangladesh, it is important to understand how those variables may influence IE

enactment in Bangladesh.

The current study found that teacher attitudes, teacher efficacy and perceived

school support are critical in shaping teachers' intentions to include students with

disabilities within government primary schools (in the Dhaka division) in Bangladesh:

teachers' positive attitudes, greater teacher efficacy and higher perception of school

support were associated with more positive behavioural intentions towards inclusion.

This is consistent with other studies, (e.g., Scanlon & Barnes-Homes, 2013), that

suggest negative teacher attitudes feed "feelings of inadequacy" which, in turn,

negatively impacts on teachers' interactions with students with a disability (Scanlon &

Barnes-Holmes, 2013, p. 4). Additionally, there are studies which suggest that teacher

efficacy is another element very important in understanding the progress and challenge

of inclusive education (e.g., Sharma et al., 2012). These studies present teacher efficacy

as a powerful predictor of both teachers' attitudes towards IE (Savolainen et al., 2012)

and behavioural intentions to enact inclusive practices (MacFarlane & Woolfson, 2013).

Further, there are myriad international studies (e.g., Avramidis & Norwich, 2002; Yan

& Sin, 2013) which, after examining both of the variables of teacher attitudes and

teacher efficacy, or either one of them, indicated the variables were significantly

associated with successful implementation of IE. Among all the predictor variables,

perceived school support for inclusive education was found to be the strongest in

explaining variance in teachers' intentions towards inclusion. The importance of perceived school support has been previously recognised in international studies (e.g., Avramidis & Norwich, 2002). This study found that teachers' perception of support is positively associated with teachers' intentions to include students with a disability in regular classes: higher perceived support contributes to affirmative intentions. Perceptions of strong support and encouragement were also associated with positive attitudes towards inclusion, and increased teacher efficacy to implement inclusive practices.

Recent global studies promote the value of IE as a means of addressing diversity in the classrooms, educating all students irrespective of their differences and ensuring quality education in developing countries, including South and West Asian countries (e.g., UNESCO, 2010). Those reports also found negative attitudes of the stakeholders of education, including teachers, and inadequate support, such as resources, to be major obstacles of successful implementation of IE in the classroom. The findings of this study, in conjunction with those of previous studies, reinforce the argument that the variables of teacher attitude, teacher efficacy and perceived school support are, indeed, significant predictors of teachers' willingness to successfully implement IE in primary schools in Bangladesh.

In the majority of developing countries, teachers have little input into education policies: policies are drawn up by policy makers not educators (Singal, 2005). Consequently, issues which might affect teachers' attitudes, teaching efficacy and intentions to enact IE in the classroom may not be addressed in IE related programmes. Another important challenge in developing countries like Bangladesh is the shortage of context-based empirical studies (CSID, 2005) and a dependence on Western experiences (e.g., consultant models) when designing intervention programmes.

Inclusive education originated as a Western concept (Alur, 2001; Miles, 1997) and, because of its effectiveness in addressing access, equity and fairness in education, this approach was seen to be applicable across the world. However, the context sensitivity of inclusive education (Ainscow et al., 2006) risks diminution of the programme at the intersections of cross-cultural and national boundaries. Therefore, it is necessary to know the contextual issues behind the challenges. Even if teachers' perceptions of support are found to invariably be a predictor of teachers' willingness to enact IE across countries, the characteristics of support might be different from one context to another. To Bangladesh teachers, support for IE means cooperation from the Principal, colleagues, school management committee, parents of the students and, most importantly, instructional resources, teacher training and support professionals (Ahmmed, 2013).

This study found that both teachers' previous acquaintance with a person with a disability outside the classroom and experience of teaching a student with a disability led to more positive attitudes towards inclusion and higher levels of teacher effectiveness. The study further determined that previous success in teaching such students contributes significantly to teacher efficacy. This is an interesting result that contributes to an area with conflicting findings. Some past research has found that success in teaching a student with a disability and contact with such students may impact positively on the way teachers approach inclusion of the students (e.g., Kalyva et al., 2007), possibly making them more receptive to undertaking future similar endeavours (Malinen et al., 2012). Whilst there are mixed findings in previous studies about the influence of contact, some studies do suggest that contact with a person with a disability might generate more positive attitudes among teachers towards inclusion (e.g., Hein, Grumm, & Fingerle, 2011) and greater teaching efficacy in an inclusive classroom (e.g., Ahsan et al., 2012). These should not be disregarded. Nor should

studies that, on the other hand, submit that contact with a person with disability could impact negatively on attitudes towards inclusion (e.g., Bradshaw & Mundia, 2005) while yet others did not find contact as a significant predictor of teacher attitudes towards inclusion (e.g., de Boer et al., 2012). It is fair, though, to assume that the findings of this study will be useful for teacher educators and teacher training providers in Bangladesh when designing training modules for inclusive education under PEDP III. Such training may include providing systematic contact with students with disabilities and opportunities for experiences of success in teaching such students. Experimental studies are needed to establish the degrees of effectiveness of a variety of such strategies (in primary education in Bangladesh) prior to general use.

The findings of the study revealed that the level of attitudes towards inclusion of students with disabilities was close to neutral (neither positive nor negative), considerably below a level that would suggest definitely positive attitudes. This finding is supported by the viewpoint of de Boer et al. (2011) who postulated that the majority of teachers hold undecided or negative attitudes towards inclusive education. In contrast, a recent study found that pre-service teachers in Bangladesh had generally positive attitudes towards inclusive education (Ahsan et al., 2012). A possible explanation for the difference in attitudes status of pre and in-service teachers in primary education in Bangladesh is that pre-service teachers might have received more training and exposure to IE pedagogy in their teacher education programme than did the in-service teachers. This can be further explained by global studies which suggest that in-service teachers usually find dissimilarities between their learning in the pre-service teacher education programmes and their actual experience in the classroom (e.g., Philpott, Furey, & Penney, 2010). The difference in status of attitudes of pre and in-service teachers towards inclusion invites further study towards understanding the underlying causes. Interestingly, despite the (close to) neutrality of their attitudes

towards inclusion, participating teachers in the current study had fairly high levels of perceived teacher-competence to enact inclusive practices in regular classes. Similarly, Ahsan et al.'s (2012) study of pre-service teachers in the Bangladesh context found moderately high levels of perceived teaching competence. The current study revealed that the level of in-service teachers' perception of receiving support for inclusive education from the school was found to be distinctly low. In alignment with Sharma et al.'s (2013) study, it seems that, although the majority of developing countries are implementing IE, teachers feel this is accompanied by insufficient funding, support, or knowledge. This study determined the level of teachers' intentions to include students with disabilities to be slightly lower than somewhat positive. This status of intentions of Bangladeshi teachers can be compared with a recent study in Ireland which found teachers, despite having immense motivation and educational competence, lacked critical skills for managing students with special needs in regular, inclusive classes (Scanlon & Barnes-Holmes, 2013). One possible explanation for this finding is that teachers' intentions towards inclusion are linked to their perceptions regarding the adequacy of resources and support.

In addition to the above findings based on the applied survey, the focus group interviews revealed that participating teachers are sceptical about full inclusion as they were concerned about the programme's success under current conditions. Teachers' intentions to include students with disabilities in regular classrooms were found to be entangled with a number of issues (e.g., school support, professional obligation, empathy towards persons with a disability). Participating teachers considered inclusive education to be an effective approach to achieving education for all school-aged children in Bangladesh: they supported inclusion of all disadvantaged students, particularly children with (moderate or mild) disabilities in neighbourhood primary schools. The teachers expressed both compassion towards these children and their

obligation to comply with the directives of the education department to achieve Education for All (EFA) goals. They realised that neighbourhood, regular schools were the only educational option for those children since there is no alternative of special schools for the majority of children with disabilities. They were willing to include disadvantaged children as a part of their job, to carry out the orders of the Education Department and contribute to the nation's effort to achieve education for all school-aged children, as decreed in the EFA and MDGs goals. However, their main concern was the inadequacy of existing support from the school community of Principal, school management committee, colleagues, and parents of students with disabilities. Participating teachers reported that there was not a lot of cooperation from school management committees who were disinclined to concede to classroom teachers' support requests if they included budgetary allocations (e.g., purchasing some instructional resources). Nor did teachers feel there was much cooperation from most of the parents of children with disabilities, many of whom came from a poor economic background. The teachers reported that, among the parents who were insolvent and poor, there were many who used their children to earn a living through begging, rather than sending them to school. The teachers were also concerned about the extreme inadequacy of personnel and instructional resources (e.g., flexible curriculum, appropriate writing board, braille), including hands-on training in inclusive education. They were found to be motivated (by professional obligation and empathy towards persons with a disability) to implement inclusive practices as best they could, although they confessed their inability to address the needs of the classroom with diverse learners. These findings may be understandable considering IE is a relatively new phenomenon in primary education in Bangladesh (Asim, 2011) and teachers are, therefore, not well acquainted with this approach to education. This is likely to compound the quandary teachers face when determining their positions towards

inclusion, thereby potentially compromising success of the programme. The underlying causes of this instability are related to a number of issues, including inadequacy in training, support and resources.

The teachers reported the available training in IE was insufficient and, to some extent, inappropriate to enable them to implement inclusive practices. From this, it can be assumed that current teacher training programmes inadequately prepare teachers for applying inclusive methods in their teaching practices. The FGIs further revealed that there was a lack of systematic collaboration among the school community and of support. Presumably, available teacher training programmes do not focus a great deal, if at all, on collaboration with other community groups such as school management, colleagues and parents of students with a disability. Given these findings, it can be suggested that both pre and in-service teacher development programmes need to allow teachers to collaborate with each other (Deppeler, 2012), to express the challenges they are facing and discuss possible solutions (Barr & Smith, 2009). It may be useful to consider one of the contextual characteristics of Bangladesh, when considering this finding, that people are culturally collective (Choudhury, 2012). This collectivity is displayed in the family, at educational institutions and in workplaces (Rahman, 2005). In a "collectivism-dominant society", teachers' intentions, attitudes and teaching efficacy may well be heavily influenced by the cooperation and support they receive from the school community (Yan & Sin, 2013, p. 11). Taking this cultural proclivity into account, it can be reasonably assumed that teachers' insistence on the issue of support and its impact on their intentions to enact IE in the classroom practices may stem from feelings of abandonment when they do not believe there is sufficient collaboration with or assistance from stakeholders while implementing the new approach that is IE. The significance of such a perception in the context of primary education in Bangladesh was consolidated by the survey results that found teachers'

attitudes towards inclusion, perceived teacher efficacy and intentions towards inclusion were all determined by how they discerned available support. It is a common theme in existing studies that teachers are dissatisfied with the available support and resources (Scanlon & McGilloway, 2006). It has also been noted that teachers' perception of support and resources influences their self-perceptions of competence (Butler & Shevlin, 2001) and their views towards IE (Kern, 2006). A study in Botswana found that teachers were concerned about inadequate support, lack of collaboration with other stakeholders (e.g., colleagues, parents) and insufficient resources and these concerns are associated with teachers holding negative views about including students with disabilities in mainstream primary schools (Mukhopadhyay, Nenty & Abosi, 2012). As stated, IE is a recent initiative in primary education in Bangladesh (UNICEF, 2003) and the majority of schools are not fully ready to implement IE in their classroom practices, although schools are expected to enrol all children irrespective of their abilities, disabilities or any disadvantages. It is unsurprising, particularly at this inception stage, that teachers' intentions to enact IE are influenced by their perception of support, especially cooperation from their school community. International studies also contend that effective IE practice needs a collaborative approach, with teamwork among the school population (Deppeler, 2012). Considering the findings of this study, cultural trends and related arguments in the field, it is likely that it will be highly beneficial for the stakeholders of primary education in Bangladesh to ensure teachers feel adequately supported. To do so, these stakeholders need to understand the impact of the currently available support and resources on teachers' perceptions. Evaluating the actual resources and support on offer may not necessarily indicate likely responses of all teachers, whose experiences vary depending upon location of the schools, and the age, qualification and experience of the teachers. Undoubtedly, such broad-based, representative information is very important for the PEDPIII in Bangladesh to ensure it

is taking necessary and suitable measures. To facilitate this, a nationwide study is needed to understand how individual schools and locations differ from each other in terms of teachers' perceptions of support. Such a study would be built in to this preliminary phase of IE and conducted by a body of researchers affiliated with stakeholders of IE.

From a methodological perspective, it was evident that the findings of both the surveys and focus group interviews complemented each other in providing a better understanding of teachers' intentions towards inclusion of students with disabilities in regular classrooms. This reciprocal relationship extended to the other teacher variables of attitudes towards inclusion, efficacy to implement inclusive practices, their perception of school support, and their mutual relationships. The survey determined the influences of teacher variables (e.g., attitudes, efficacy, and perceived school support) on teachers' behavioural intentions towards inclusion, the levels of those variables, and their predictors. Additionally, the FGIs shed further light onto the survey findings, focusing on the views of the teachers towards inclusion and details of the background aspects that underpinned such decisions. These mixed perspectives have helped to understand the individual variables examined in the study, as well as the intricacies of their mutual relationships within the TPB model (Ajzen, 1991).

From a theoretical perspective, the results of this study are supportive of the variables conceptualised within the TPB framework, as described in other international studies (e.g., Hsieh et al., 2012; Morley et al., 2005; Yan & Sin, 2013). Under the Theory of Planned Behaviour, an individual's intentions to perform a planned behaviour is influenced by other associated variables, such as attitudes towards a behaviour in demand, perceived behavioural control and subjective norms (Ajzen, 1991, 2005). It has been suggested that, if measured accurately, subjective norms may contribute more

variance in intentions (e.g., Yan & Sin, 2013). The efficacy of TPB in measuring individual's behavioural intentions accurately has been proven in many studies across the globe (e.g., Armitage & Conner, 2001). Conceptualising the variables (e.g., teacher attitudes towards inclusion, teacher efficacy and perceived school support) within the TPB framework, this study found that teachers' intentions are significantly influenced by the above variables, with 40% variance in teachers' intention explained by these variables. These results are similar to those of other international studies of this kind (Armitage & Conner, 2001).

Implications of the Study

This section of the chapter presents a synopsis of the key implications arising from the overall findings. Each paper previously included in this thesis has outlined implications of specific findings relevant to that paper. It is important to note that a discussion paper focusing on the broader implications of the findings in this thesis and other relevant contemporary studies concludes the thesis (see Epilogue). It is situated within the constraints of empirical contextual evidence, and the recent initiatives and investment in inclusive education reform in Bangladesh (e.g., US$ 8.3 billion will be spent for Third Primary Education Development Programme).

The current study presents implications at a national (e.g., PEDP III) and international level (e.g., Asian Development Bank, the World Bank). The limited empirical contextual evidence previously available (CSID, 2005) means this study offers useful directions for addressing the contextual issues associated with teachers' positive attitudes, greater teaching efficacy and positive behavioural intentions to include students with disabilities in regular classrooms. It has been mentioned elsewhere in this thesis that the Third Primary Education Development Programme

(PEDP III) is a recently undertaken, sector-wide mega programme in Bangladesh, covering Grades I to V and one year of pre-primary education, with significant financial and technical support from international development partners including the World Bank, Asian Development Bank, European Union and UNICEF. Its primary aim is to create an effective, inclusive and equitable primary education system providing successful and relevant learning to all children (DPE, 2011a). The major outcome areas of the PEDP III project comprise achievement in learning outcomes, participation, disparities reduction, decentralisation, effective use of budget allocations, and programme planning and management. It can, therefore, be seen that the findings of the present study might be useful for the PEDP III programme and are recommended to its stakeholders for consideration and utilisation, particularly while preparing teachers for implementing IE in classroom practices in primary education in Bangladesh.

Considering that teachers play such an important role in IE implementation, it is important to find out what could influence teachers' willingness to enact inclusive practices in the classrooms. The findings suggest to stakeholders that, in order to successfully implement IE in regular primary education classrooms in Bangladesh, particularly regarding students with disabilities, it is necessary for teachers to feel supported and to have greater teacher efficacy and positive attitudes towards inclusion. If teachers' perception of support can be raised to a higher level, it will positively impact on their attitudes, their confidence and, finally, on IE practices in the classrooms. Educational administrators may derive greater success in implementing IE if they develop a culture of collaboration and support among school communities, in particular, cooperation and endorsement from the school Principal, colleagues, parents of the students, and allied professionals (e.g., special needs teachers or coordinator). Educational policy makers should consider contextually useful, in-service training for the teachers in IE, and an adequate supply of teaching-learning resources which are

much needed if teachers are to have greater teaching efficacy and hold positive attitudes and behavioural intentions to enact IE. For effective implementation of IE practices, the support and resources should be grounded on teachers' understanding of, and beliefs about, their practices. It is important to highlight that abundant resources and support cannot help unless the teachers themselves regard them as adequate for implementing IE practices. Teachers' ideas and reactions to types of support and resources are paramount, and must be gathered and incorporated, rather than taking the risk of simply allocating plenty of resources and support without understanding teachers' thoughts about them. It is notable that, in developing countries (such as Bangladesh), teachers' needs are rarely considered when educational policies and programmes are introduced (Malak, 2013a; Singal, 2005). Policies and programmes are drawn up by policy makers and teachers are asked to enact them (Sharma, et al., 2013). Confirming this recommendation, international studies (e.g., Forlin & Rose, 2010) also suggest providing teachers with contextually effective support, taking into account the needs and requirements of students and teachers, and availability of resources for IE practices. Thus, it may be useful for the policy makers in primary education in Bangladesh to take steps to understand teachers' needs for implementing IE. In line with practices in other countries (Devecchi et al., 2012), it is suggested that a Special Needs Coordinator be appointed to a cluster of schools to provide teachers with training support. However, there are debates on the nature of duties and responsibilities of such professionals (particularly teacher aides), in inclusive classrooms that warrant consideration when looking at these resources (Keating & O'Connor, 2012). Currently however, in the existing staffing pattern, there is no provision for special needs teachers, teacher aides or special needs coordinators in primary education in Bangladesh, despite teachers saying they need the support and cooperation of such professionals. The effectiveness of professional staff in the Bangladesh context will require examination.

Another important area is effective collaboration within the school community to provide classroom teachers with a feeling of shared responsibility for addressing the difficult situation of implementing IE in their classroom practices (Deppeler, 2012). The participants of this study emphasised the necessity of such collaboration and that it is currently lacking. A recent study in Bangladesh also stressed the need for collaboration to successfully implement IE in regular schools after finding a lack of teamwork and consultation among stakeholders (Malak, 2013b). Other international studies (e.g., Deppeler & Huggins, 2010) report that collaboration has a positive impact on teachers' confidence in implementing IE practices. It is suggested that educational policy makers and teacher educators in Bangladesh should emphasise and incorporate communication and cooperation within the school community as an essential tool in teacher development for IE. Further study is warranted to identify and develop a contextually useful model for collaboration and support.

Additionally, there is a need to address teacher training for inclusive education. In light of the findings of this study, it is evident that existing in-service teacher training programmes in Bangladesh do not adequately prepare teachers to enact IE practices in the classrooms. The teachers who participated in the study regarded the available training as insufficient and inappropriate for preparing them to execute inclusionary actions. Appropriate teacher training has been demonstrated to be an important element for successfully implementing IE practices (Florian, Young & Rouse, 2010). Given the findings of this study and existing arguments on teacher training in the field (e.g., Rose, Shevlin, Winter & O'Raw, 2010), it is recommended that teacher education programmes for both pre and in-service teachers should be revised. This study found that contact with a student with a disability and experiences of past success in teaching a student with a disability significantly influenced teacher attitudes and teaching efficacy in Bangladesh context (in Dhaka division). International studies (e.g., Kalyva et al.,

2007) also revealed that teachers' confidence in implementing inclusive practices and positive attitudes towards inclusion are positively influenced by previous successful experiences. It may be useful for the teacher educators in Bangladesh to consider these aspects (e.g., contact and past success) while designing teacher training modules for IE. To develop a sense of confidence and accomplishment, teacher educators need to ensure that teachers gain positive experiences and success when teaching students with a disability during their training practicum (Sharma et al., 2006). One useful strategy could be inviting an educator with a disability to train the teachers during teacher training programmes. This follows studies (e.g., Tracey & Iancono, 2008) that found involvement of a trainer with a disability positively impacts on trainees' attitudes towards people with a disability. Das et al. (2013) note that teacher training programmes should be financially affordable, effective, and contextually useful. An in-depth study might assist in finding an appropriate, effective and affordable training model for primary school teachers in Bangladesh.

Educational policy makers in Bangladesh should seek a greater understanding of the issues related to non-cooperation of some parents with child/children with disabilities from poor socio-economic backgrounds regarding sending their children to school. It was anecdotally relayed, by teachers, that some parents exploited their disabled children as beggars during school hours. It is undeniable that poverty and disability live side-by-side in developing countries (Rousso, 2003). Education stakeholders could consider a meaningful allowance for students with a disability. Participant teachers mentioned current provisions are inadequate. An encouraging lesson can be taken from a recent successful intervention in Bangladesh where the 'food for education' programme dramatically improved student enrolment in primary schools (Sukontamarn, 2013).

To educate all school-aged children, including those with a disability or disadvantaged background, in the mainstream education system in Bangladesh to achieve EFA and MDGs, stakeholders should consider the contextual issues related to teachers' intentions to enact IE practices. It is anticipated that the above recommendations, drawn from the findings of this study, may benefit IE practices not only in Bangladesh but in other comparable countries in South Asia that face similar issues. It is unavoidable that many developing countries have merely emphasised students' enrolment and compromised the quality of education in order to achieve EFA milestones (UNESCO, 2003). As in other developing countries, the EFA pursuit, by applying an IE strategy, has challenged the quality of education in the heterogeneous and overcrowded classrooms in Bangladesh. Quality education can be seen as the synonym of both EFA and IE (Miles & Singal, 2010). In order to ensure quality education for all learners and make IE successful, stakeholders need to carefully consider the cultural and contextual issues that impede and stimulate teachers' success with IE practices.

The study offers some guidance towards preparing teachers for IE practices in primary education in Bangladesh. It is not easy for a developing country such as Bangladesh to change the infrastructure of all schools to become disability-friendly within a short period of time and provide adequate resources (human and material). To do so requires a huge amount of money and time. It may be more feasible to adopt other measures such as preparing teachers with adequate and appropriate training and allowing teachers to feel supported by the school community. It is most important that the school management committee, including the school Principal, be empowered with adequate authority for making local level decisions and taking initiatives to successfully implement IE in regular classrooms (Mullick, et al., 2012). In future IE- related policy

reforms, teachers' active involvement in the policy framing process needs to be assured for successful and effective utilisation of intended change.

It is hoped that this study has made some methodological and theoretical contributions. Conceptualisation of useful resources and school support in the context of Bangladesh's implementation of IE in regular classes led to the design and development of a scale by which to measure teachers' perception of school support for undertaking inclusive teaching practices. Using a mixed design (i.e., surveys and focus group interviews), the study presented a detailed understanding of the system of TPB variables, contributing to the richness of TPB studies. It illuminated contextual factors which influence and determine a number of very important variables associated with discharging IE at the classroom level (e.g., teacher attitudes, teacher efficacy, and teacher intentions). It has, further, applied serious consideration to those critical variables and their determinants.

Limitations of the Study

Although each of the individual papers included in the thesis acknowledged limitations pertinent to their respective contexts, it is appropriate to revisit them here. The following constraints must be considered when interpreting the findings of this study. First, data were collected only from in-service teachers working in government primary schools in the Dhaka Division. This sample does not fully cover and represent each and every aspect of diversity of the country, such as the tribal population of the Chittagong Hill Districts and non-government schools. Therefore, caution needs to be taken   when generalising these findings beyond the population surveyed. Second, vigilance is required when making assumptions of actual behaviour of the teachers re including a student with a disability in regular classes based on expressed behavioural

intentions. Although the Theory of Planned Behaviour suggests that intentions are the proximal antecedent and are a powerful predictor of actual actions (Fishbein & Ajzen, 1975), it also recognises that an individual may not have full control over performing the behaviour (Ajzen, 1991).

Directions for Future Research

This study has addressed the intended research aims and, at the same time, exposed a number of new areas and directions for further research. Relevant to the scope of this particular study (having arisen as a consequence of it), they extend the original parameters and, thereby, present opportunities for future research. Each paper included in this thesis similarly reflects on potential for further study arising from each respective study.

Given the findings of this project and of past studies in the field, and the impetus of IE reform in Bangladesh, the following key areas of interest are recommended for future research:

- As current teacher training in inclusive education does not seem to adequately and effectively prepare teachers for implementing IE practices, it might be useful to use contextually effective strategies such as experiences of success in teaching a student with a disability and contact with a student with a disability or a tutor with a disability in teacher training programmes. To understand the usefulness of those strategies on teachers' classroom behaviours, further study is required.

- Qualitative data showed that the participants indicated a need to have a Special Needs Coordinator/teacher aides to support them when implementing IE

practices. Research in Bangladesh could be helpful to understand more about the necessity and usefulness of such professionals with regard to employing IE in the classroom.

- Survey data showed that teachers with higher educational qualification (e.g., Postgraduate qualifications) had less positive attitudes towards inclusion than teachers with below-Bachelor's and Bachelor's degree qualifications. It might be worthwhile undertaking research into the reasons behind their negative attitudes towards inclusion.

- Interview data showed that some parents feel concerned about their child/children sitting next to a child with a disability. The quality of IE education could be enhanced by learning the views of fellow students (without disabilities) about the inclusion of a student with a disability, and also the experiences of students with disabilities in an inclusive classroom.

- This study has elicited information about teachers' behavioural intentions as an antecedent of actual behaviour. A further study focusing on the conduct of teachers in an inclusive classroom can shed light on the proximity of behavioural intentions and actual behaviours of the teachers in classroom practices, and on the mediators controlling these actions in the Bangladesh context.

- Both the survey and interview data suggest that teachers want collaboration among the school community and support for IE enactment. Research to determine an effective mode of collaboration and support for inclusive education enactment in Bangladesh and the roles community members play may provide a step towards more effective IE performance.

- In this study, perceived school support for inclusive practices has been found to be a significant variable that influences teacher attitudes, teacher efficacy and teachers' behavioural intentions. A further study is warranted to understand how teachers' perceptions of school support vary on the basis of differences in teachers' background variables and locations of schools.

Epilogue

One of the major aims of the thesis was to investigate the predictors of teachers' intentions to include students with disabilities in regular government primary schools in Dhaka division in Bangladesh. The other was to examine the predictors of teachers' attitudes towards inclusion and of teacher efficacy to implement inclusive practices in regular classes. This thesis indicates that teachers' positive intentions to include students with disabilities are significantly influenced and affirmed by teachers' perceptions of high levels of school support for IE practices, optimistic teacher attitudes towards inclusion and confidence in teacher efficacy. It also establishes that higher perceptions of school support and some specific demographic variables are associated with positive teacher attitudes and greater teacher efficacy. As favourable teachers' attitudes towards teaching students with disabilities in the classroom are critical to the successful implementation of IE reform, it is imperative that an understanding of the influences and motivators is attained. This study offers a contribution towards such an understanding, with its findings that elucidate the impact of and relationships between the investigated variables, notably from the perspective of Bangladesh as a developing country.

It is critical to reiterate that Bangladesh has taken the IE approach as a means to educate all children, particularly those school-aged children who are traditionally out of any form of education from disadvantage pertaining to disabilities, poverty, gender,

ethnic minorities and for whom there is a lack of any alternative arrangement, either in regular or special schools. Within its limited economic capacity, Bangladesh is trying its utmost to educate all school-aged children in regular schools towards achieving EFA and MDGs goals by employing IE as a strategy. Education systems throughout the world are being encouraged to tackle   the issue of teaching and learning that is inclusive of students' diversity and differences in ability and needs and this is imposing an important role on teachers (Smith & McCully, 2013).   Although IE is a new educational approach in Bangladesh, compared to developed countries, it has been progressing well even if there are still huge challenges (Inclusion International, 2009; UNESCO, 2010). To make IE implementation successful, the country needs to move forward with its IE approach by reflecting on these challenges to IE practices and the prospects these present. For this to occur, the stakeholders of primary education need to undertake a range of measures for addressing contextual issues. Particularly, the conditions influencing teachers' attitudes towards inclusion, teacher efficacy and teachers' intentions towards IE enactment require greater consideration.

The thesis ends with a propositional paper (entitled, *Implementing inclusive education in primary schools in Bangladesh: Recommended strategies*) that was developed from the key findings of this study and two other doctoral studies of education in Bangladesh. It incorporated the findings of those three doctoral studies and proposed a number of strategic guidelines for the stakeholders of primary education in Bangladesh, especially to the Third Primary Education Development Programme (PEDP III) as the major education program in Bangladesh, and for the wider community.

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Declaration by candidate

In the case of Paper 6, the nature and extent of my contribution to the work was the following:

Nature of contribution	Extent of contribution (%)
Initiated the paper, reviewed literature (partial), prepared the draft manuscript, incorporated other author's comments, prepare the manuscript and submitted to the journal.	50%

The following co-author contributed to the work:

Name	Nature of contribution
Jahirul Mullick	Contribute to the initial manuscript, reviewed literature (partial), feedback on the final manuscript.

Candidate's Signature		Date	

Declaration by co-author

The undersigned hereby certify that:

(1) The above declaration correctly reflects the nature and extent of the candidate's contribution to this work, and the nature of the contribution of each of the co-authors.

(2) they meet the criteria for authorship in that they have participated in the conception, execution, or interpretation, of at least that part of the publication in their field of expertise;

(3) they take public responsibility for their part of the publication, except for the responsible author who accepts overall responsibility for the publication;

(4) there are no other authors of the publication according to these criteria;

(5) potential conflicts of interest have been disclosed to (a) granting bodies, (b) the editor or publisher of journals or other publications, and (c) the head of the responsible academic unit; and

(6) the original data are stored at the following location(s) and will be held for at least five years from the date indicated below:

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Appendix A: Survey Questionnaires

Background Information questionnaire

Instructions: Please respond to the following questions with the most appropriate answer that applies to you.

1.   Your gender

        ☐ Female   ☐ Male

2.   Your age: _____ years

3.   What is your highest level of qualification?

        ☐ Less than Bachelor's degree

        ☐ Bachelor's degree

        ☐ Master's degree

        ☐ Above Master's degree

4.   How long have you been in the teaching profession?   _____ Years

5.   Where is your current school located?

        ☐ Urban

        ☐ Suburban

        ☐ Rural

6.   Do you have students with disability in your current classroom?

        _____

7.   Do you have acquaintance with a person with a disability outside the classroom?

        ☐ Yes   No ☐

8.   Please rate your degree of success to date in teaching students with a disability in a regular classroom.

        ☐ Low

        ☐ Average

        ☐ High

9.   Please rate the level of in-service training in inclusive education you have the following:

        ☐ None   ☐ 2 Modules

        ☐ 1 Module   ☐ More than 2 modules

Teachers' attitudes toward inclusion scale

(Adapted from School Principals' Attitudes toward Inclusion (SPATI) scale developed by Bailey [2004])

Instructions: After reading each statement, please <u>circle</u> the most appropriate response at the right of each statement that reflects your personal opinion.

1 Strongly Disagree	2 Disagree	3 Neither agree nor disagree	4 Agree	5 Strongly Agree

For example:

If you agree with the statement below, circle 4

Students with physical disabilities create too many problems to permit inclusion

1 2 3 ④ 5

1	Students with physical disabilities create too many problems to permit inclusion	1	2	3	4	5
2	Including students with special needs create few additional problems for teachers' class management	1	2	3	4	5
3	Students who cannot read normal print size should not be included in regular classrooms	1	2	3	4	5
4	Because special schools are better resourced to cater for special needs students, these students should stay in special schools	1	2	3	4	5
5	Students who are continuously aggressive towards their fellow students should not be included in regular classrooms	1	2	3	4	5
6	Regular teachers are not trained adequately to cope with the students with disabilities	1	2	3	4	5
7	Students with mild disabilities should be included in regular classrooms	1	2	3	4	5
9	Regardless of whether the parents of regular students object to inclusion, the practice should be	1	2	3	4	5

	supported					
10	Special needs students belong in special schools where all their needs can be met	1	2	3	4	5
12	Students with disabilities benefit academically from inclusion	1	2	3	4	5
13	Regular students will be disadvantaged by having special needs children in their classroom	1	2	3	4	5
14	Students who are continually aggressive towards school staff should not be included in regular classrooms	1	2	3	4	5
15	Special needs students whose achievement levels in basic skills are significantly lower than their classmates should not be included in regular classrooms	1	2	3	4	5
16	Students who have to communicate in a special way (e.g., communication boards/ signing) should not be included in regular classrooms	1	2	3	4	5
18	Including students with special needs is unfair to regular teachers who already have a heavy work load	1	2	3	4	5
19	Students with severe disabilities should be included in regular classrooms	1	2	3	4	5
20	Students with moderate disabilities should be included in regular classrooms	1	2	3	4	5
21	Students with disabilities benefit socially from inclusion	1	2	3	4	5
22	Regular students benefit socially from inclusion	1	2	3	4	5
23	Students with special needs will take up too much of the teachers' time	1	2	3	4	5
24	Students with severe speech difficulties should not be included in regular classrooms	1	2	3	4	5

Teacher Efficacy for Inclusive Practice Scale

(Designed by Sharma, Loreman, & Forlin [2012])

Please circle the number that best represents your opinion about each of the statements. Please attempt to answer each question.

1 Strongly Disagree	2 Disagree	3 Disagree Somewhat	4 Agree Somewhat	5 Agree	6 Strongly agree

		SD	D	DS	AS	A	SA
1	I can make my expectations clear about student behaviour.	1	2	3	4	5	6
2	I am able to calm a student who is disruptive or noisy.	1	2	3	4	5	6
3	I can make parents feel comfortable coming to school.						
4	I can assist families in helping their children do well in school.	1	2	3	4	5	6
5	I can accurately gauge student comprehension of what I have taught.	1	2	3	4	5	6
6	I can provide appropriate challenges for very capable students.	1	2	3	4	5	6
7	I am confident in my ability to prevent disruptive behaviour in the classroom before it occurs.	1	2	3	4	5	6
8	I can control disruptive behaviour in the classroom.	1	2	3	4	5	6
9	I am confident in my ability to get parents involved in school activities of their children with disabilities.	1	2	3	4	5	6
10	I am confident in designing learning tasks so that the individual needs of students with disabilities are accommodated.	1	2	3	4	5	6
11	I am able to get children to follow classroom rules.	1	2	3	4	5	6
12	I can collaborate with other professionals (e.g., itinerant teachers or speech pathologists) in	1	2	3	4	5	6

	designing educational plans for students with disabilities.						
13	I am able to work jointly with other professionals and staff (e.g., aides, other teachers) to teach students with disabilities in the classroom.	1	2	3	4	5	6
14	I am confident in my ability to get students to work together in pairs or in small groups.	1	2	3	4	5	6
15	I can use a variety of assessment strategies (for example, portfolio assessment, modified tests, performance-based assessment, etc.).	1	2	3	4	5	6
16	I am confident in informing others who know little about laws and policies relating to the inclusion of students with disabilities.	1	2	3	4	5	6
17	I am confident when dealing with students who are physically aggressive.	1	2	3	4	5	6
18	I am able to provide an alternate explanation or example when students are confused.	1	2	3	4	5	6

Perceived School Support for Inclusive Education Scale

Instruction: This scale is about examining how much school support you receive in order to include children with diverse needs in your classrooms. Please read each of the following statement carefully and rate the support you receive in your respective situation. Please circle the most appropriate number that correspond your answer. Please attempt to answer each question.

1	2	3	4	5
None at all	Minimal	Hardly adequate	Adequate	A great deal

1	I receive necessary support from the Principal to implement inclusive education at the classroom level.	1	2	3	4	5
2	I receive regular in-service training on teaching	1	2	3	4	5

	students with diverse needs.					
3	I receive support from the school managing committee (SMC) to implement inclusive education in the school.	1	2	3	4	5
4	I receive support from peer colleagues to implement inclusive education in my school.	1	2	3	4	5
5	I receive support from the family of the child/children with disabilities to implement inclusive education in my school.	1	2	3	4	5
6	I receive support from the families of the children without disabilities to implement inclusive education in my school.	1	2	3	4	5
7	I receive necessary resources from the school to teach students with diverse needs when needed (such as Braille for blind students).	1	2	3	4	5
8	I receive support from special teacher when needed.	1	2	3	4	5

Multidimensional Attitudes toward Inclusive Education Scale (MATIES)

[Originally developed by Mahat (2008)]

Instructions: After reading each statement, please <u>circle</u> the most appropriate response at the right of each statement that reflects your personal opinion.

1	2	3	4	5	6
Strongly Disagree	Disagree	Disagree Somewhat	Agree Somewhat	Agree	Strongly agree

1	I am willing to physically include students with a severe disability in the regular classroom with the necessary support.	1	2	3	4	5	6
2	I am willing to modify the physical environment to include students with disability in the regular	1	2	3	4	5	6

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	classroom.						
3	I am willing to encourage students with disability to participate in all social activities in the regular classroom.	1	2	3	4	5	6
4	I am willing to adapt my communication techniques to ensure that all students with special needs can be successfully included in the regular classroom.	1	2	3	4	5	6
5	I am willing to adapt the curriculum to meet the individual needs of all students regardless of ability.	1	2	3	4	5	6
6	I am willing to adapt the assessment of individual students in order for inclusive education to take place.	1	2	3	4	5	6

Thank you for your time and effort.

You can be assured that all information will be kept confidential.

Appendix B: Focus Group Interview (FGI) Guided Questions

The FGIs were guided around the following questions:

1. What are your views about the inclusion of students with diverse needs/disabilities in the regular classroom?

2. How confident do you feel in teaching students with special needs/disabilities in regular classrooms?

3. What kind of support (e.g., material/human) do you feel you are receiving (or not receiving) for implementing IE in your regular classrooms?

4. What are the factors you think influence you to include/not include students with special needs/disabilities in regular classrooms?

5. What are the barriers to including children with special needs/disabilities in regular classrooms?

6. If you have any additional information/suggestions, please specify.

Appendix C: Explanatory Statements

MONASH University

Title: Exploring predictors of teachers' intentions towards the inclusion of students with disabilities in regular primary schools in Bangladesh

> NOTE: This information sheet is for you to keep.

Student research project
The above titled research is a part of Masud Ahmmed's Doctor of Philosophy program at the Faculty of Education, Monash University, Australia. This research project is supervised by A/ Prof, Joanne Deppeler, Monash University and Senior Lecturer, Dr. Umesh Sharma, Monash University.

The aim/purpose of the research
The major aim of this study is to understand whether and how teachers' attitudes, teacher efficacy and perceived school support influence teachers' intentions to include students with disabilities in their classrooms. Data for this study will be collected from the government primary schools in Bangladesh.

Possible benefits
The findings of this study may benefit the stakeholders of inclusive education including the national (Primary Education Development Programmes in Bangladesh) and international organizations (e.g., UNESCO, UNICEF, World Bank, ADB, AusAID etc) involved in promoting inclusive education in Bangladesh by informing them about the determinants of teachers' behavioural intentions to include students with disabilities in their classrooms.

What does the research involve?
This research involves survey questionnaires and focus group interviews (FGI).
Who are the participants?
The participants of the study are in-service teachers working in government primary schools in Bangladesh.

How much time will the research take?
The time needed to complete the survey questionnaire is up to 30 minutes. The time for FGI is 40- 50 minutes.

Inconvenience/discomfort
I do not anticipate any level of inconvenience and/or discomfort to the participants. The participants can avoid answering questions in the survey questionnaire or at FGI which are felt too personal, sensitive or uncomfortable to them.

Remuneration
No remuneration will be offered to the participants for their precipitations to survey/FGI.

Can the participant teachers withdraw from the research?

Participation in this study is fully voluntary. There is no obligation to the participation. The participants can withdraw from the study at any time.

Confidentiality
Collected information will not be communicated to anyone else. Personal identification of the participants will not be disclosed in the thesis or a book or a journal article.

Storage of data
Storage of the data will adhere to the University regulations and will be kept in University premises in a locked cupboard/filing cabinet for 5 years. Report of the study may be submitted for publications, but individual participants will not be identifiable in such a report. The data will not be used for any other purposes. If it is used for other purposes, it is anonymous data, nobody will be named and they will not be identified in any way.

Results
If you would like to be informed of the aggregate research finding, please contact Masud Ahmmed on ████████████████████████████████████

If you would like to contact the researchers about any aspect of this study, please contact the Chief Investigator:	If you have a complaint concerning the manner in which this research is being conducted, please contact:
Dr. Joanne Deppeler Associate Dean Research Degrees Faculty of Education Monash University Clayton, VIC-3800 Australia Phone: ████████████ E-mail: █████████████████	Rokshana Bilkis Deputy Director Research Division National Academy for Educational Management Dhaka, Bangladesh. Phone: ██████████████ E-mail: ███████████████

Kind regards

Masud Ahmmed
PhD Candidate
Building 6, Room 140
Faculty of education, Monash University
Vic-3800, Australia
Phone: ███████████
Mobile: ████████████████ ██████████████████
 Email: ██████████████████████████

Appendix D: Consent Forms for Focus Group Interviews (FGI)

MONASH University

Consent form for focus group interview

Title: Exploring predictors of teachers' intentions towards the inclusion of students with disabilities in regular primary schools in Bangladesh

NOTE: This consent form will remain with the Monash University researcher for records only

I agree to take part in the Monash University research project specified above. I have read the Explanatory Statement and understand that agreeing to take part this part of the research means:

I agree to take part in focus group Interview (FGI).
I agree to allow the FGI to be audio-recorded: ☐ Yes ☐ No

I understand that my participation is voluntary and I can choose not to participate/withdraw from the FGI without being penalised or disadvantaged in any way.

I understand that any data that the researcher extracts from the FGI for use in thesis/ articles/books will not, under any circumstances, contain names or identifying characteristics.

I understand that any information I provide is confidential, and that no information that could lead to the identification of any individual will be disclosed in any reports on the project, or to any other party.

I understand that data from the FGI will be kept in a secure storage and only accessible to the research team. I also understand that the data will be destroyed after a 5 year period unless I consent to it being used in future research.

Participant's name:

Signature:

Date:
Contact details:
Address:

Mobile:
Phone:
Email:

Appendix E: Ethics approval from the Monash University Human Research Ethics Committee (MUHREC)

MUHREC Amendment CF09/3244 – 2009001767: Inclusive education in Bangladesh: Predictors of primary teachers' intention to include diverse students

Reply |MRO Human Ethics Team to Joanne, Umesh.Sharma, hosne.begum, me show details 23/11/2010

PLEASE NOTE: To ensure speedy turnaround time, this correspondence is now being sent by email only. MUHREC will endeavour to copy all investigators on correspondence relating to this project, but it is the responsibility of the first-named investigator to ensure that their co-investigators are aware of the content of the correspondence.

Assoc Prof Joanne Deppeler

Faculty of Education

Monash Clayton Campus

23 November 2010

CF09/3244 – 2009001767: Inclusive education in Bangladesh: Predictors of primary teachers' intention to include diverse students

Dear Researchers

Thank you for submitting a Request for Amendment to the above named project.

This is to advise that the following amendments have been approved and the project can proceed according to your approval given on 8 January 2010:

1   Change of personnel - addition of student researcher Mr Masud Ahmmed

2   Change of title - from Inclusive education in Bangladesh: Impact of professional development on secondary teachers TO: Inclusive education in Bangladesh: Predictors of primary teachers' intention to include diverse students

3   Change to procedures –

·   One additional survey questionnaire and a focus group interview to replace the individual interviews,

·   Data to be collected at one point of time instead of at two stages,

·   Primary teachers to replace secondary school teachers,

·   Participants selected via a three step sampling procedure,

·   Data collection to include the sending of survey questionnaire, explanatory statement, consent form and return-paid envelope to the selected schools by post and interested teachers requested to return completed questionnaire and consent form directly to the student researcher by post.

Please note you are required to send an Annual / Final Report to comply with the Terms of Approval.

Thank you for keeping the Committee informed.

Professor Ben Canny
Chair, MUHREC

cc: Dr Umesh Sharma, Ms Hosne Ara Begum, Mr Masud Ahmmed
=================
Human Ethics
Monash Research Office
Building 3E, Room 111
Monash University, Clayton 3800
Phone: 9905 5490
email: muhrec@monash.edu
http://www.monash.edu.au/researchoffice/human/

Appendix F: Approval for Data Collection from Directorate of Primary Education (DPE), Bangladesh

গণপ্রজাতন্ত্রী বাংলাদেশ সরকার
প্রাথমিক শিক্ষা অধিদপ্তর
সেকশন ২, মিরপুর, ঢাকা ১২১৬

স্মারক নং প্রাশিঅ/৫পি/৩-ইনক্লুসিভ/০৯/ ২৮২৮-(৮)   তারিখঃ ০৮ পৌষ ১৪১৭ বঙ্গাব্দ
                                                         ২২ ডিসেম্বর ২০১০ খ্রি:

বিষয়ঃ   সরকারী প্রাথমিক বিদ্যালয়ের শিক্ষকদের মধ্যে একীভূত শিক্ষা বিষয়ক গবেষণা কাজ পরিচালনার অনুমতি প্রসংগে।

সূত্রঃ   মনাশ বিশ্ববিদ্যালয়ের পত্র তারিখঃ ১৯/১২/২০১০।

উপর্যুক্ত বিষয় ও সূত্রের পরিপ্রেক্ষিতে জানানো যাচ্ছে যে, জনাব মাসুদ আহম্মেদ, পিএইচডি গবেষক, ফ্যাকাল্টি অব এডুকেশন, মনাশ বিশ্ববিদ্যালয়, অষ্ট্রেলিয়া ডাঃ জোঃ এন ডেপলার, সহযোগী অধ্যাপক এবং ডঃ উমেষ শর্মা, সিনিয়র লেকচারার মনাশ বিশ্ববিদ্যালয়, অষ্ট্রেলিয়া এর সাথে গবেষণা করছেন। তাঁর গবেষণার উদ্দেশ্য হচ্ছে কিভাবে শিক্ষকদের নিজ সামর্থ, দৃষ্টিভঙ্গি এবং স্কুল সাপোর্ট প্রতিবন্ধী শিক্ষার্থীদের একীভূত শ্রেণীকক্ষে অর্ন্তভুক্তির ক্ষেত্রে তাদের মনোভাবকে প্রভাবিত করে তা বিশ্লেষণ করা। তিনি তাঁর গবেষণার অংশ হিসেবে বাংলাদেশের ৪টি থানা/উপজেলার সরকারি প্রাথমিক বিদ্যালয়ের শিক্ষকদের নিকট থেকে প্রশ্নপত্র এবং সাক্ষাৎকারের মাধ্যমে তথ্য সংগ্রহ করতে সুব্যবস্থ পত্রে অনুমতি প্রদানের আবেদন করেছেন।

২।   উল্লেখ্য যে, মনাশ বিশ্ববিদ্যায়ের পিএইচডি গবেষক জনাব মাসুদ আহম্মেদকে সরকারি প্রাথমিক বিদ্যালয়ের শিক্ষকদের সম্পৃক্ত করে গবেষণাকর্মটি পরিচালনার অনুমতি প্রদান করা হয়েছে। এমতাবস্থায়, আপনার উপজেলাধীন প্রাথমিক বিদ্যালয়ের নিয়মিত কার্যক্রম বিঘ্নিত না করে তাঁর গবেষণা কাজে সহযোগিতা প্রদান করার জন্য অনুরোধ করা হলো।

পরিচালক (পলাস ও অপারেশন)

থানা/উপজেলা শিক্ষা অফিসার

....

স্মারক নং প্রাশিঅ/৫পি/৩-ইনক্লুসিভ/০৯/   তারিখঃ   পৌষ ১৪১৭ বঙ্গাব্দ
                                                                    ডিসেম্বর ২০১০ খ্রি:
অনুলিপিঃ

১। জেলা প্রাথমিক শিক্ষা অফিসার, ঢাকা।

২। থানা/উপজেলা শিক্ষা অফিসার.............................

৪। মহাপরিচালকের ব্যক্তিগত সহকারী, প্রাথমিক শিক্ষা অধিদপ্তর (ইহা মহোদয়ের সদয় অবগতির জন্য)।

৫। জনাব জনাব মাসুদ আহম্মেদ, পিএইচডি গবেষক, ফ্যাকাল্টি অব এডুকেশন, মনাশ বিশ্ববিদ্যালয়, অষ্ট্রেলিয়া।

৬। সংরক্ষণ নথি।

সহকারী পারচালক(এআইএমএস)
ফোন: ৯০১৫৪৯৩

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Appendix G: Literature Search Procedures

Overview of literature search and publication selection procedure

Literature search was performed using A+, British education index, ERIC, Scopus, ProQuest, PsychINFO, and Web of Knowledge database/search engine. During the searches a certain list of key words was used for each section (i.e. teacher attitudes, teacher efficacy, and perceived school support). Details of the key words have been shown in each of the section (see table 1, 2, and 3). The search was filtered and refined by using some limiting criteria (e.g. last 10 years, English Language, peer reviewed journals, Duplicates deleted through EndNote). Publications were further narrowed by reading the titles and abstract respectively. Then, the publications were selected for reading subject to relevancy and availability of the full text. In addition to the electric search, 10 journals in the field (*International Journal of Inclusive Education, European Journal of Special Needs Education, British Journal of Special Education, Exceptional Children, British Journal of Educational Psychology, International Journal of Disability, Development and Education, Disability and Society, Journal of Research in Special Educational Needs,* and *International Journal of Special Education*) and University Library data base were hand searched for relevant publications.

Table 1.

Results of Publications Search for Teacher Attitudes

Search terms	Search method	Found (initial)	Titles checked	Abstracts read	Not found/ not relevant	Relevant publications read
Teacher Attitudes, Inclusive Education, Mainstreaming, Inclusion, Special needs pupils, Special educational needs, Impairment, Impaired, Disorders, Handicapped, Disabled, Disabilities	A+	58	32	19	13	6
	British education index	198	150	68	52	12
	ERIC	286	142	59	37	20
	Scopus	548	127	41	26	13
	ProQuest	432	176	38	25	9
	PsychINFO	217	60	23	12	10
	Web of Knowledge	69	26	10	5	5
	Hand search					14
Total						71

Table 2.

Results of Publications Search on Teacher Attitudes Towards Inclusion

Search terms	Search method	Found (Initial)	Titles checked	Abstracts read	Not found/ Not relevant	Relevant Publications read
Teacher Efficacy Inclusive Education; Mainstreaming; Inclusion; Special needs pupils; Special educational needs; Impairment; Impaired; Disorders; Handicapped; Disabled; Disabilities. Further filtered the search with the term	A+	37	24	15	9	6
	British education index	130	101	34	23	11
	ERIC	239	117	85	53	32
	Scopus	429	135	61	43	18
	ProQuest	368	118	42	33	9
	PsychINFO	122	66	13	8	5
	Web of Knowledge	43	21	8	6	2
	Hand search					8
Total						91

Table 3.

Results of Publications Search on School Support for Implementing IE

Search terms	Search method	Found (Initial)	Titles checked	Abstracts read	Not found/ Not relevant	Relevant Publications read
School support, Teachers' perception, Inclusive Education; MainstreamingInclusion; Special needs pupils; Special educational needs; Impairment; Impaired; Disorders; Handicapped; Disabled; Disabilities	A+	56	39	15	9	6
	British education index	98	74	52	44	8
	ERIC	167	82	69	51	18
	Scopus	196	105	43	32	11
	ProQuest	138	110	37	23	14
	PsychINFO	103	78	32	19	13
	Web of Knowledge	65	29	15	11	5
	Hand search					12
Total						87

Appendix H: Codes to Themes

Data analysis in relation to teachers' views about inclusion and factors behind these views

Initial (Preliminary) codes	Reduced (Final) codes	Themes
• Teachers want to include children with disabilities as there is no other option for those children to be educated • Teacher believes that students with disability or special needs may learn from IE • Teacher supports inclusion from the social responsibility • Government's policy compels the teachers to include *all* children from the nearby locality in the school • Feel that they should get the light of education • Teachers realize that poor families have greater difficulties supporting children with disabilities • Media, training and policy reform motivate the teacher to implement IE • The teachers feel that children of nomadic populations (such as bede, street children) should come to the school • Teachers support inclusion of students with special needs and disabilities for charitable reasons • Teachers feel that taking care of students with special needs results is depriving general students • Teachers know that there is no special school in the countryside • Teacher realises that special school means isolation for	• Teachers want to include children with disability to provide them educational opportunity • Teacher's willingness to include those children is influenced by government policy and media. • Teachers are optimistic about the benefit of inclusive education	Teachers' willingness to include students with disability is related to social responsibility and education policy

students with disabilities		
• The teachers feel pressure to implement IE • Teachers find it challenging to implement IE in their classrooms • Teachers are not fully prepared to teach children with disabilities in regular classrooms. • Teachers are not confident to provide education to children with disabilities in an over-populated class • Teachers do not have skills to teach the children with disabilities and special needs • Teachers are comfortable with low numbers of students with disability in the classroom • Teachers face challenges to manage students with special needs • Teacher feels that his/her teaching does not help students with special needs in learning. • Teachers feel pressure as the Education Department urges them to ensure 100% enrolment • Teacher feels that he/she is not skilled enough to implement IE • Teacher feels helpless to address individual learning needs in an overly-populated classroom without being supported.	• Teachers are not independently capable of implementing IE • Teachers feel pressured to implement IE • Teachers need skills development to address IE • Teachers face difficulties in addressing the needs of students with disability	Teachers are not adequately prepared to implement IE under current conditions in schools
• Teachers feel that children with disabilities and special needs might be better supported at special schools • Teachers suggest separate classrooms for students with disabilities and special needs • Teachers suggest separate seating arrangements for the children with disability and special needs in the classroom	• Teachers are not aware of the benefit of educating children with disability in the regular classroom • Teachers suggest segregated seating arrangements for student with disability in regular classrooms	Teachers are doubtful about the benefit of IE

• Teachers believe that existing learning facilities are not helping with the learning of children with special needs and disabilities • Teachers feel the necessity of establishing area based sub-centres for educating students with disabilities and special needs • Teachers think that school is not prepared to implement IE • Teachers perceived that children with disabilities cannot cope with other students in the classrooms • Teacher feels that association of children with disabilities or special needs with the 'normal' children in regular classroom benefits only the first group	• Teachers are pessimistic about the learning progress of students with disabilities in regular classrooms • Teachers feel the need for area based learning sub-centres for students with disability	
• Teachers feel the need for dialogue with school stakeholders • School management does not cooperate with teachers for implementing IE if it incurs funding • Limited support causes stress to teachers in implementing IE • No support from the school management committee (SMC) • Teachers get support from school staff • Teachers feel the need for support from the Principal and colleagues • Teachers do not receive support from the local community	• Teachers feel the need for dialogue with the school community • Lack of monetary support from the school administration to implement IE • Lack of support from SMC and local community • Need more support from colleagues and Principal	Cooperation from the school community is insufficient
• The majority of the parents of general students are supportive towards IE • Some parents are concerned about their children sitting next to the children of nomadic populations and sex workers • The majority of the parents	• The majority of the parents of the general students support IE • Parents are not aware about educational opportunities in nearby regular schools for	Parents with poor economic background provide little support towards the education of their children

of children with disabilities do not know that their children can get education at regular schools • Teacher experiencing non supportive attitudes from the family of a student with disability • Some of the parents of children with disabilities think it is more profitable to use their kids for begging rather than sending them to school • Some parents complain about children with special needs and disabilities disturbing their own children • The students with special needs and disabilities usually come from economically insolvent families	their children with disability • Lack of parental support causes problems for teaching student with disability • Some parents do not want their children seated next to a student with disability, which they may define in terms of family ethnicity or occupation • Some parents with economically insolvent conditions prefer using their children for begging.	with disability Parents of children without a disability provide support towards IE; however, some are found as protective for their own children.
• Teacher feels that the major cause of struggles in teaching in IE is the lack of instructional resources • Instructional resources available to teachers are very inadequate • Need technological support for implementing IE • Teacher doubts the quality of teaching with available resources • Schools cannot afford instructional resources and other equipment for IE practices • Teaching curriculum needs to be made flexible for all students	• Lack of instructional resources pose challenges for the teachers to teach students with disabilities • Available teaching resources are insufficient • Need IT supported teaching resources for implementing IE • Teaching curriculum is not suitable for inclusive education	Teachers do not have adequate teaching resources to implement IE
• Teachers feel the need for teaching aides to support effective teaching • Teachers feel the necessity of cooperation from special needs teachers • Recommend appointing at least one special education teacher for each school • Teacher feels the need for a psychologist to assess the	• Teachers find it difficult to teach students with disability and special needs without the support from teaching aides • Teachers feel that at least one special education teacher	Lack of special need teachers and aides creates a challenges for the teachers

needs of some students identified as possibly having special needs.	should be recruited for a cluster of schools.	
• Teachers find it challenging not to have support from the special education teachers.		
• Teachers feel the need to recruit a Special Needs teacher for a cluster of schools		
• Teachers realise that support services are problematic		
• Inadequate numbers of teaching staff		
• Necessity of training while teaching and managing students with disabilities and special needs		Existing training in IE does not meet the requirement
• Necessity of appropriate training in IE for implementing IE in the classrooms		
• The major cause of struggles in IE in teaching is limited teacher training	• Teachers feel it necessary to receive hands on (practical) training in inclusive education	Teachers needs hands on (practical) training
• Current training only helps to understand the basics of IE	• Teachers find the available training insufficient	
• Inclusion of students with special needs or disabilities is possible if every teacher receives training	• Teachers find the available training unsuitable	
• Teachers are not trained to use teaching resources for IE.	• Training impacts on teachers' willingness to include students with disability	
• Training has motivated the teacher to support IE		
• Teachers' positive attitudes towards IE are subject to the support and training they received.		
• Training could enable them to address learning needs of all learners.Need for hands-on (practical) training in IE		
• Teachers find current seating arrangements challenging to implement IE in the classroom.		
• Students with disabilities	• Teachers face challenges to	

get bullied by other students • Excessively high number of students causes problems for the teachers to implement IE teaching • Teachers feel that the existing classroom does not have wheelchair access facilities • Infrastructure condition of school is not disability friendly • General students are not willing to sit with the students with disabilities • It's difficult for the students with disability to get access to all parts of the school premises • Current infrastructure of the classroom causes problems for the teachers to address IE in regular classrooms. • Writing board is not special needs friendly	implement inclusive teaching practices due to disability-unfriendly classroom situations • Teachers find current classroom over populated • Teachers face difficulties in developing an inclusive seating arrangement suitable for all students. • Sometimes teachers find students without a disability sometimes are unfriendly towards student with a disability	Lack of disability-friendly classroom environment creates problems for teachers
• Teachers need to spend extra time to teach students with disabilities in regular classroom • Children with special needs and disabilities • consume most of the time of a class • Class duration causes problems for the teachers to implement IE • Duration of present class period is not enough for so many students • Teachers don't know why the authorities are not extending the time of each period	• Teachers find present class duration too short • Teaching students with disability requires extra time • Short class duration causes problems for teachers.	Current class duration is too short for implementing IE.