Pre-service Teachers' Preparedness for Inclusive Education Contexts in Bangladesh

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A thesis submitted for the degree of

Doctor of Philosophy

Faculty of Education

Monash University, Australia

July 2014

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DEDICATION

I would like to dedicate this thesis

To My MOTHER, Mrs. Sahera Begum, who started her career as a school-teacher but, due to taking responsibilities of ensuring educational and social development of other family members, she had to sacrifice her own career. However, she applied her teaching experience in raising her own children later on…..

and

To My FATHER, Mr. Md. Abdul Khaleque, who started his career as a college-teacher but reality of life took him in many directions, such as banker, businessman and, later on, as an employee of the management board of a garment export industry. However, he has always missed his teaching profession and feels happy to see that his only son and only daughter are now both in the teaching profession…..

ABSTRACT

Past research has indicated that teachers' attitudes, teaching-efficacy and concerns have a direct impact on their competence in the classroom and in students' achievements. Studies have identified that pre-service teacher education is the most appropriate time to prepare teachers with positive attitudes and high teaching-efficacy about inclusive education (IE). This research project aimed to understand pre-service teachers' preparedness for IE in Bangladesh through exploring their attitudes towards, teaching-efficacy for and concerns about IE.

The study was conducted in two phases. In Phase 1, a survey and semi-structured interview schedules were employed. A three-part survey questionnaire was used with 1,623 pre-service teachers that included a questionnaire for demographic information, the Sentiments, Attitudes, Concerns regarding IE (SACIE) scale for measuring attitudes and concerns and the Teacher Efficacy for Inclusive Practices (TEIP) scale for measuring teaching-efficacy of pre-service teachers. By applying a multiple regression analysis, it was found that variables such as length of training, gender, interaction with persons with disabilities, knowledge about local legislation and level of training involved had significant relationships with participants' attitudes, teaching-efficacy and concerns. In addition, pre-service teachers' teaching-efficacy was found to be positively correlated to their attitudes and negatively correlated with their concerns about IE.

In Phase 1 of the study, semi-structured interviews were conducted with 22 institutional heads (IHs) of higher education, pre-service teacher education institutions

to explore their beliefs and opinions about IE. Thematic analysis of the interviews indicated that some IHs conceptualised IE using a 'medical-model' of diagnosis and normative development and believed that IE was not suitable for children with a severe disability. Challenges were identified under four themes: attitudinal beliefs, academic challenges, challenges in practicum and challenges for beginning teachers. Interviewees further identified some useful strategies to address those challenges such as curriculum reform, emphasising more practicum opportunities than theories, human resource development, resource support and more empowerment of IHs to implement inclusion.

The Phase 1 survey findings of the study indicated that the relationships of three variables, i.e. level of training involved, gender and length of training, with participants' attitudes and teaching-efficacy were in sharp contrast to previous research. For example, Bangladeshi secondary level, pre-service teachers showed more positive attitudes and higher teaching-efficacy than their primary level counterparts: Bangladeshi pre-service teachers enrolled in a 1-year program showed higher teaching-efficacy than those who were in a 4-year program. Also, female pre-service teachers in Bangladesh had more positive attitudes but lower teaching-efficacy than their male counterparts.

In order to further understand those inconsistent results, the Phase 2 study was designed, employing semi-structured interviews with 6 IHs. Thematic analysis of the interviews done in Phase 2 indicated that possible reasons behind the findings that appear to be in sharp contrast with those from previous international research. The

differences in these findings are possibly explained by a number of curriculum, teacher-related and contextual variables.

Based on the findings of the two phases of this study, a number of recommendations are made for policy makers, teacher educators and others engaged in inclusive education reform. The study investigated how socio-cultural contexts may have impacted background variables to predict pre-service teachers' preparedness for IE. Several curriculum reform issues were identified: one significant finding was that it was the quality of the teacher education program that contributed to teacher preparedness for IE, rather than the length of the program. The study draws attention to the need for further research to investigate socio-cultural influences on variables such as gender and grade level of teaching to understand pre-service teachers' preparedness for IE. Further research could explore the longitudinal effects of pre-service teachers' readiness for IE through observing their classroom practices as regular teachers. In addition, further analysis could validate the scales employed in this study for the Bangladesh context.

Key words: Inclusive education, pre-service teachers, teacher attitudes, teaching-efficacy, concerns, Bangladesh.

THESIS FORMAT

The thesis includes both published papers and unpublished text. The author's contribution to each of the five published papers included as part of the thesis is listed in Table (i).While the thesis is presented according to the recommended Publication Manual of the American Psychological Association [APA] 6th Edition (APA, 2010), individual publications are presented as published and, therefore, the style reflects the specific journal requirements. The Reference list includes references used in the thesis additional to those found in the papers, while each of the included papers contains its own reference list. The ideas, development and writing of the published papers included in the thesis were the principal responsibility of me, the doctoral candidate working within the Faculty of Education of Monash University, Australia, under the supervision of Associate Professors Umesh Sharma and Joanne M. Deppeler.

GENERAL DECLARATIONS

In accordance with Monash University Doctorate Regulation 17/ Doctor of Philosophy and Master of Philosophy (MPhil) 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. The core theme of the thesis is to explore pre-service teachers' preparedness for inclusive education in Bangladesh.

Table (i)
List of Publications Included in the Thesis

Thesis chapter	Authorship	Publication title	Status	Year	Student researcher's contribution as co-author	Nature and extent of candidate's contribution	Journal
2	M.T. Ahsan & J. Mullick	The journey towards inclusive education in Bangladesh: Lessons learned	Published	2013	50%	Conceptual development, design, administration, data analyses and principal author.	Prospects
5	M.T. Ahsan, U. Sharma & J.M. Deppeler	Exploring pre-service teachers' perceived teaching-efficacy, attitudes and concerns about inclusive education in Bangladesh	Published	2012	80%	Conceptual development, design, administration, data analyses, and principal author.	International Journal of Whole Schooling (IJWS)
5	M.T. Ahsan, J.M. Deppeler& U. Sharma	Predicting pre-service teachers' preparedness for inclusive education: Bangladeshi pre-service teachers' attitudes and perceived teaching-efficacy for inclusive education	Published	2013	80%	Conceptual development, design, administration, data analyses, and principal author.	Cambridge Journal of Education (CamJE)
6	M.T. Ahsan, U. Sharma & J.M. Deppeler	Beliefs of pre-service teacher education institutional heads about inclusive education in Bangladesh	Published	2011	80%	Conceptual development, design, administration, data analyses, and principal author.	Bangladesh Education Journal (BEJ)
6	M.T. Ahsan, U. Sharma & J.M. Deppeler	Challenges to prepare pre-service teachers for inclusive education in Bangladesh: beliefs of higher educational institutional heads	Published	2012	80%	Conceptual development, design, administration, data analyses, and principal author.	Asia Pacific Journal of Education (APJE)

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

Signed:
Name: Mohammad Tariq Ahsan   **Date: 11 July 2014**

CONFERENCE PRESENTATIONS RELEVANT TO THIS THESIS

1. Ahsan, M. T., Sharma, U. (2013). *Impact of teacher education course on pre-service teacher preparation for inclusive education.* International conference on Inclusive Education; organized by the Asian Centre for Inclusive Education (ACIE), 15-17 February 2013, Dhaka, Bangladesh.

2. Ahmmed, M. & Ahsan, M. T. (2013). *Examining pre- and in-service teachers' attitudes and teaching efficacy: Inclusive education in primary education in Bangladesh.* International conference on Inclusive Education; organized by the Asian Centre for Inclusive Education (ACIE), 15-17 February 2013, Dhaka, Bangladesh.

3. Ahsan, M. T., Sharma, U. & Deppeler, J. (2011). *Beliefs of pre-service teacher education institutional heads about inclusive education in Bangladesh.* International Symposium on Inclusive Education. UNESCO-BAFED Researchers' Conference, 4 June, 2011, Dhaka, Bangladesh.

4. Ahsan, M. Tariq, Sharma, U. & Deppeler, J. (2010). *Primary Level Pre-Service Teacher Preparation: Institution Heads Beliefs and Views about Inclusive Education in Bangladesh.* International Conference on Interdisciplinary Social Sciences, Cambridge University, August 2010, UK.

5. Mullick, J., Ahsan, M. T., Deppeler, J., & Sharma, U. (2010). *Inclusive Education Reform in Bangladesh: Interpretation, Implementation and Challenges.* 2nd International Conference on Education, Economy and Society, 21 to 24 July 2010, Paris, France.

6. Ahsan, M. Tariq, Sharma, U. & Deppeler, J. (2010). *Higher education institutions' heads belief about inclusive education and its impact on pre-service*

teacher preparation in Bangladesh. International Conference of Inclusive and Supportive Education Congress (ISEC), August 2010, Belfast, UK.

7. Ahsan, M. Tariq, Sharma, U. & Deppeler, J. (2010). *Paradigm shift in teacher education: How pre-service teacher education is responding to the inclusive education reforms in Bangladesh.* International Conference on Child Friendly Inclusive Education, 7-8 January, 2010, IER, University of Dhaka, Bangladesh.

8. Ahsan, M. Tariq Sharma, U. & Deppeler, J. (2009). *Pre-service Teacher Preparation Curriculum for Inclusive education in Bangladesh.* International Conference on Making Inclusive Education Happen, 27-30 September, 2009, Wellington, New Zealand.

9. Ahsan, M. Tariq (2009). *Status of Primary Level Pre-service Teacher Education Curriculum for Implementing Inclusive Education in Bangladesh.* Monash Education Research Community-MERC Conference-2009; 03 July 2009, Monash University, Australia.

10. Ahsan, M. Tariq & Mullick, J.I. (2009). *Education System in Bangladesh.* Global Education Systems Day Conference, MERC, 08 June 2009, Monash University, Australia.

11. Ahsan, M. Tariq (2008). *Effectiveness of the existing pre-service teacher education standard for future teachers' preparedness to address the inclusive education reforms in Bangladesh.* Krongold Centre Research Expo Conference-2008, 13 November, 2008, Monash University, Australia.

LIST OF ABBREVIATIONS

AusAID	Australian Agency for International Development
C-in-Ed	Certificate in Education
B.Ed	Bachelor of Education
B.Ed (Hons.)	Bachelor of Education (Honours)
DG	Director General
DPE	Directorate of Primary Education
DSHE	Directorate of Secondary and Higher Education
EFA	Education For All
FSP	Female Secondary School Stipend Project
ICE	International Conference on Education
IE	Inclusive Education
IER	Institute of Education and Research
IH	Institutional Head
MIGR	Monash University Institute of Graduate Research
MOE	Ministry of Education
MOPME	Ministry of Primary and Mass Education
MOWCA	Ministry of Women and Children Affairs
MRGS	Monash Research Graduate School
MSW	Ministry of Social Welfare
MUHREC	Monash University Human Research Ethics Committee
NAPE	National Academy for Primary Education
NPA II	National Plan of Action Phase Two
OECD	Organization for Economic Co-operation and Development

PEDP II	Second Primary Education Development Programme
PEDP III	Third Primary Education Development Programme
PES	Primary Education Stipend
PTI	Primary Teachers' Training Institutes
ROSC	Reaching Out-of-School Children
SACIE	Sentiments, Attitudes & Concerns regarding Inclusive Education
SLIP	School Level Improvement Plan
SMC	School Management Committee
SPSS	Statistical Package for the Social Sciences
TEIP	Teacher Efficacy for Inclusive Practices
TPB	The Theory of Planned Behaviour
TQI-SEP	Teaching Quality Improvement in Secondary Education Project
TTC	Teachers' Training College
UGC	University Grants Commission
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations International Children's Emergency Fund

CHAPTER 1

Introduction

"যে শিশু ভূমিষ্ঠ হল আজ রাত্রে

তার মুখে খবর পেলুম;

সে পেয়েছে ছাড়পত্র এক,

নতুন বিশ্বের দ্বারে তাই ব্যক্ত করে অধিকার

জন্মমাত্র সুতীব্র চীৎকারে।"

---ΩΙΟΟ̂ː সুকান্ত ভট্টাচার্য (ভট্টাচার্য, ১৯৪৮)

"The child who is born this night

I got message from him

That he has brought a letter,

At the very moment of birth

In sharp (piercing) cries…

Declaring about his rights in this new world"

---Bangla poet Shukanta Bhattacarya (Bhattacarya, 1948)

in his poetry Charpatra [The Testimonial] , (Translated by Barua, 2008)

Since the passage of the *Salamanca Declaration* (UNESCO, 1994), Bangladesh, like many education systems around the world, promotes inclusive education (IE). IE aims to ensure that schools do not discriminate against any student on the basis of their gender, disability, culture, ethnicity, religion or any other difference (UNESCO, 1994). Implementation of IE in Bangladesh began with several policy reform initiatives. In 2001, the Government of Bangladesh enacted the *Bangladesh Persons with Disabilities Welfare Act 2001* (Ministry of Social Welfare [MSW], 2001). *Part D* of this Act specifically stipulated that:

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- opportunities are to be created in regular schools to ensure the full participation of children with disabilities,

- adequate resources and an accessible environment must be made available to schools,

- training opportunities must be provided for teachers and other professionals regarding inclusion of children with special needs into education (MSW, 2001, p. 11-12).

In response to international policy reforms, the Government of Bangladesh developed several large-scale education programs with a specific focus on IE, which include the Primary Education Development Program (PEDP) Phase Two (II) 2003 to 2010 (DPE, 2005, 2007), the PEDP Phase Three (III) 2010 to 2015 (DPE, 2011) and the Teaching Quality Improvement in Secondary Education Project (TQI-SEP) 2005 to 2011 (TQI-SEP, 2010). PEDP II and III were launched to make primary education more accessible for learners from varied backgrounds. TQI-SEP was designed as a pilot project at secondary school level. It was anticipated that the experience gained from the pilot project would guide the implementation of IE at larger scale in Bangladesh. In addition, these programs aimed to ensure that children who may be 'at risk' from exclusion (e.g. children with disabilities, ethnic groups, socially disadvantaged children and girls) attended regular school (DPE, 2005, 2007; TQI-SEP, 2006, 2010). In 2011, the Primary School Census 2010 of DPE (2011) reported that, due to PEDP II interventions, the enrolment of children with mild disabilities in primary schools doubled from 45,680 in 2009 to 83,023 in 2010.

An IE approach to schooling is strongly emphasised in the National Education Policy 2010 (Ministry of Education [MOE], 2010). This policy prioritises four target groups for implementing IE: children with special needs, girls, children from ethnic communities and children who are disadvantaged due to socio-economic reasons. The policy provided several guidelines for implementing IE. These were: ensuring adequate resources so that all children can learn their native language, including those who are from ethnic backgrounds; providing physical and assistive device facilities at schools for children with disabilities. Furthermore, the policy recommended for supplying food and stipends to children from poor families; introducing flexibility to school timing for children from remote geographical areas; establishing separate toilet facilities for female students; and, making available adequate training in IE for pre-service teachers (MOE, 2010). To promote the successful implementation of the Education Policy 2010, a draft law titled Proposed Draft Education Act 2013' (MOE, 2013) was proposed by the Ministry of Education which supports inclusive education as a viable strategy to ensure a favourable learning environment for disadvantaged people, whether this disadvantage is from gender, religion, caste, language, ethnicity, disability, poverty, special needs for learning, geography or, indeed, for any other reason (MOE, 2013, p. 2). The policy and program initiatives undertaken by the Government of Bangladesh for implementing IE indicate a commitment to enacting change in the education system, consistent with the goals of the Salamanca statement. In inclusive classrooms, teachers in regular schools will use practices that allow the full diversity of students to participate and be successful in classroom activities.

Consistent with the UNESCO (2009) report, drafted at the International Conference on Education (ICE) 2008 and recommending teacher education programs,

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including pedagogical knowledge and classroom practices, prepare pre-service teachers for IE, the Bangladesh Government's National Education Policy 2010 articulated the importance of teacher preparation at the pre-primary and primary level for IE. It expressed a need to prepare "at least one trainer specialised in one area of disability for every Primary Teachers' Training Institute" (MOE, 2010, p. 7). Further, it recommended the revision of existing Bangladeshi pre-service teacher education programs that were described as "traditional, incomplete, certificate-oriented, theory-based, providing less practical opportunities, rote-learning based…"(MOE, 2010, p. 56). Such concern regarding pre-service teacher education programs in the National Education Policy 2010 foreshadowed the challenge that policymakers and teacher educators are facing in Bangladesh.

Pre-service Teachers' Preparedness for Inclusive Classrooms

While there are a number of studies related to pre-service teachers' preparedness for IE conducted in Western countries, limited studies have been undertaken in an Asian socio-cultural context. What research there is suggests that the implementation strategies of IE in developing countries is different from that in Western contexts (Forlin, 2008, Sharma, 2011; Sharma, Forlin, Deppeler & Guang-xue, 2013, Sharma, Forlin, Loreman & Earle, 2006; Singal, 2005). These differences may be related to cultural factors such as the beliefs and attitudes of pre-service teachers towards accepting children from different backgrounds in the classroom or the level of confidence of pre-service teachers to implement educational reforms within schools.

An Organisation for Economic Co-operation and Development [OECD] (2009) study suggested that it is vital to understand teachers' beliefs and attitudes if

we wish to improve the status of any education system. More explicitly, it is important to understand pre-service teachers' beliefs and attitudes while they are undertaking their teacher education. The rationale is that their beliefs are formed during their early stage of training: they tend to remain unchanged thereafter (Bandura, 1997). Attitude research has shown that pre-service teachers' attitudes towards IE are a strong predictor of their teaching practices (Kim, 2006; Martinez, 2003; Savolainen, Engelbrecht, Nel & Malinen, 2011; Soodak, Podell & Lehman, 1998; Weisel & Dror, 2006). Pre-service teachers with positive attitudes towards IE appear to be more confident in teaching in inclusive classrooms (Kim, 2006; Weisel & Dror, 2006) and more welcoming towards children with disabilities (Shippen, Crites, Houchins, Ramsey & Simon, 2005). The influence of pre-service teachers' attitudes on their preparedness for IE, as observed through the study findings, indicated that understanding these attitudes may be useful to generate ideas for curriculum reform, selecting classroom management strategies and remodelling education policies in regard to IE.

Several studies (Bechham & Rouse, 2011; Forlin, 2008, 2010; Lambe & Bones, 2006; Shade & Stewart, 2001) have demonstrated that the period during pre-service teacher education is the best time to develop teachers' confidence and positive attitudes towards IE: teachers who participated in a pre-service program with specific IE components appear to be more confident and optimistic about their ability to teach students with special educational needs in inclusive classrooms (Martinez, 2003; Romi & Leyser, 2006). Conversely, other studies found that, although there has been substantial reform in teacher education programs, some teachers felt less confident in including children with special needs in their classes (Forlin, Loreman, Sharma &

Earle, 2009; Kim, 2011; Shade & Stewart, 2001). Slee (2010) argued that pre-service teacher education for IE is about more than embedding special education components into existing programs: it is the understanding, knowledge and expertise through practise gained from the program that ensures teachers are confident in teaching a diversity of children.

Impact of Pre-service Teachers' Demographic Variables on Their Preparedness for IE

Previous research has revealed that pre-service teachers' attitudes towards IE may depend on several background variables. Female pre-service teachers, irrespective of geo-economic context, are found to be more positive towards IE than their male counterparts. For example, studies conducted in Ghana and Botswana (Kuyini & Mangope, 2011), Israel (Romi & Leyser, 2006) and Australia (Tait & Purdie, 2000; Woodcock, 2008) as well as comparative studies conducted in Australia, Canada, Hong Kong and Singapore (Forlin et al., 2009; Loreman et al., 2005) all reported that female pre-service teachers are inclined to have more favourable attitudes towards IE. There is, also, evidence that previous experience and interaction with people with disabilities may have considerable impact on developing positive attitudes towards IE among pre-service teachers (Caroll et al., 2003; Forlin et al., 2010; Kim, 2011; Romi & Leyser, 2006). Other studies found that young pre-service teachers tend to show more positive attitudes towards IE than their older counterparts (Avramidis & Norwich, 2002; Tait & Purdie, 2000). Researchers have noted that pre-service teachers who attained high levels of previous education (e.g. postgraduate degrees) seem to show relatively positive attitudes towards IE than those who had lower levels of education (e.g diploma or undergraduate degrees) (Sharma et al., 2009) and that

primary level pre-service teachers hold more positive attitudes towards IE than their secondary counterparts (Forlin et al., 2010; Woodcock, 2011). Attending a longer period of pre-service teacher education courses appears to increase positive attitudes towards IE. For example, a study conducted in the USA by Rademacher, Wilhelm and Hildereth (1998) on the attitudes of 78 pre-service teachers towards IE found that participants who finished the longest duration program (2-semester course) showed significantly higher optimism than those who completed the shorter duration (3-week and 1-semester) programs.

The abovementioned results are consistent regarding the impact of these demographic variables on pre-service teachers' preparedness for IE. However, there are other studies which have concluded that variables such as gender (Carroll et al., 2003); experience with persons with disabilities (Forlin & Chambers, 2011) and length of the pre-service teacher education course (Tait & Purdie, 2000) *do not* influence pre-service teachers' attitudes towards IE. The inconsistency of these sets of results, therefore, demands further investigation into the impact of the variables on pre-service teachers' attitudes towards IE. Additionally, it is important to explore whether there are any socio-cultural and contextual factors that may have an influence on Bangladeshi pre-service teacher preparedness for IE.

Conceptual Framework of the Study

In order to better understand pre-service teachers' preparedness for IE in Bangladesh, the current study is based upon three assumptions.

1. Pre-service teachers need to have positive attitudes towards IE.

2. Pre-service teachers need to have high levels of confidence, as expressed by their perceived teaching-efficacy beliefs for IE.

3. Institutional heads of pre-service teacher education institutions need to believe that IE is the best educational option for teaching students with various learning needs.

The conceptual framework for this study was guided by the Theory of Planned Behaviour (TPB) proposed by Icek Ajzen (1985, 1991, 2005). It is important to note that the purpose of this study was not to replicate or test the theory proposed by Ajzen (1985, 1991, 2005); the TPB framework provides useful constructs to be investigated in research like the current study on pre-service teachers' attitudes. The TPB provides an informative model for understanding how attitudes are formed, based on the impact of different background variables, and how attitudes are interpreted in predicting behaviour. The TPB is widely applied in different disciplines where it has been found to be a successful model for predicting behaviour (Ajzen, 2011). This theory postulates that any person's intention to carry out a behavioural act is dependent on three factors: a) the person's disposition to the behaviour; b) the person's perceived beliefs, based on the views of other, associated people, to perform or not to perform a behavioural action; and c) the person's perception towards his or her control to perform or not to perform a behavioural action through analysis of available environmental components (Ajzen, 1991; 2005). Several studies (Ahmmed, 2013, Mahat, 2008, Randoll, 2008) have tested Ajzen's (1991, 2005) assertion and support the concept that all three factors have impact on predicting a person's intention to behaviour, however, the effect is not the same at all times.

The above three factors, according to the TPB (Ajzen, 1985, 1991, 2005), were named 'attitude', 'subjective norm' and 'perceived behavioural control' respectively. Attitude towards a behaviour was defined as an evaluation by a person of his or her performance of this particular behaviour, which could be positive or negative. Perceived behavioural control describes a person's reading of the amount of control they have over performing a behavioural action, based on an examination of available environmental components such as opportunities and resources. Subjective norm referred to surrounding people's belief or opinion approving or disapproving of certain behaviour. Assumptions derived from the TPB (Ajzen, 1991, 2005) propose that the more favourable a person's attitudes and the subjective norm, as well as the greater the perceived behavioural control, the stronger should be his or her intention to perform the behaviour.

Ajzen (2005) further explained the effects of several background factors on the three components that contribute to predicting intention of a person to perform a behavioural action. Ajzen recently argued that, while his theory could not identify the origin of a person's beliefs, it could, definitely, recognise background factors that influence a person's beliefs (Ajzen, 2011). His model suggested that the background factors can be categorised under three areas: *Personal* (personality traits, emotions, values, intelligence), *Social* (age, gender, religion, education background, race, ethnicity, income) and *Informational* (previous experience, previous knowledge, media exposure). This model postulates that these three categories of background factors influence a person's attitudes, perceived behavioural control and subjective norms which, ultimately, contribute to a person's intention to perform a behaviour.

The TPB has been widely applied across different disciplines since its inception (Ajzen, 2011). Ajzen (2005) reported a summary analysis of studies conducted over a 20 year period to explore the strength of three components of the theory in predicting intention to perform behaviour. His analysis found that attitude was the most powerful predictor of intention, followed by perceived behavioural control and subjective norm, respectively. Applying the model for predicting teachers' attitudes, Randoll (2008) measured teachers' attitudes towards the behaviour required of them for successful implementation of IE in Canadian classrooms (attitudes component), as well as measuring teachers' teaching-efficacy beliefs to predict their performance in IE classrooms (perceived behavioural control component). Then, the researcher explored how principals' and colleagues' attitudes towards IE could affect teachers' own attitudes (subjective norm component). The same year, Mahat (2008) used the theory for predicting attitudes of regular primary and secondary school teachers in Victoria, Australia. She found the theory useful to explain teachers' intention towards IE by measuring their attitudes towards IE. Both of the above studies reported that teachers' attitudes towards IE are influenced by teacher, school and course related variables. In the current study, pre-service teachers' preparedness for IE in Bangladesh was explored through measuring both their attitudes towards and teaching-efficacy for IE. In addition, the beliefs of the heads of pre-service teacher education institutions towards IE in Bangladesh, as a subjective norm factor that may influence pre-service teachers' preparedness for IE, was investigated.

Ajzen (2005) considered perceived behavioural control to be a similar construct to Bandura (1997)'s perceived self-efficacy, which plays an important role in developing intention towards, as well as the performance of, actual behaviour.

Considering the self-efficacy issue in the context of pre-service teachers' preparedness for IE, several studies (e.g. Hofman & Kilimo, 2014; Kim, 2006; Savolainen, Engelbrecht, Nel & Malinen, 2011; Soodak, Podell & Lehman, 1998; Weisel & Dror, 2006) reported that pre-service teachers' teaching-efficacy appears to be a powerful predictor of their attitudes towards IE. Moreover, teachers having higher teaching-efficacy seem to apply a wide range of behaviour management skills (Woolfolk, Rosoff & Hoy, 1990), conduct more practical activities (Guskey, 1988) and take more initiatives for addressing the learning needs of all students (Mergler & Tangen, 2010). Several studies reported that factors such as:

- age (Forlin et al., 2010; Romi & Leyser, 2006),

- gender (Erdem & Demirel, 2007; Forlin et al., 2010; Gao & Mager, 2011; Romi & Leyser, 2006; Tait & Mundia, 2014; Woodcock, 2008),

- grade level of teaching (Baker, 2005; Forlin et al., 2010; Woodcock, 2011),

- previous training (Forlin et al., 2010; Romi & Leyser, 2006),

- teaching experience (Forlin et al., 2010; Romi & Leyser, 2006),

- previous interaction with people with disabilities (Forlin et al., 2010; Malinen, 2013; Romi & Leyser, 2006), and

- knowledge about IE policies in the course content (Lancaster & Bain, 2007, 2010; Romi & Leyser, 2006)

may impact on pre-service teachers' teaching-efficacy for IE.

Another factor that was considered important for understanding pre-service teachers' attitudes towards IE was their 'concerns regarding IE'. It is well documented (Bradshaw & Mundia, 2006; Chong et al., 2007; Forlin & Chambers,

2011; Loreman et al., 2005; Sharma et al., 2003; Sharma et al., 2006; Sharma et al., 2008; Woodcock et al., 2012) that pre-service teachers' concerns about IE may influence their attitudes and perceived teaching-efficacy. As pre-service teachers' concerns decline, their attitudes towards IE seem to become more positive and their level of teaching-efficacy improves (Loreman et al., 2005; Sharma et al., 2003; Sharma et al., 2006). Several researchers (Chong et al., 2007; Forlin & Chambers, 2011; Loreman et al., 2005; Sharma et al., 2003; Sharma et al., 2006) have noted that pre-service teachers' concerns about IE may be influenced by several background variables (i.e. age, gender, previous training on IE, interaction with children with disability, previous education and more) as is observed with attitudes and perceived teaching-efficacy towards IE.

Figure 1 represents the conceptual framework of the study. The model illustrates the possible relationships between the independent variables (background variables) and the dependent variables (attitudes and perceived teaching-efficacy). Further, the model attempts to explain the possible inter-relationships between the two dependent variables to predict intention to perform behaviour. Also, the model aims to explain the role of the subjective norm (beliefs of institutional heads about IE) in predicting pre-service teachers' preparedness for IE in Bangladesh.

Figure 1

Conceptual Framework of the Study
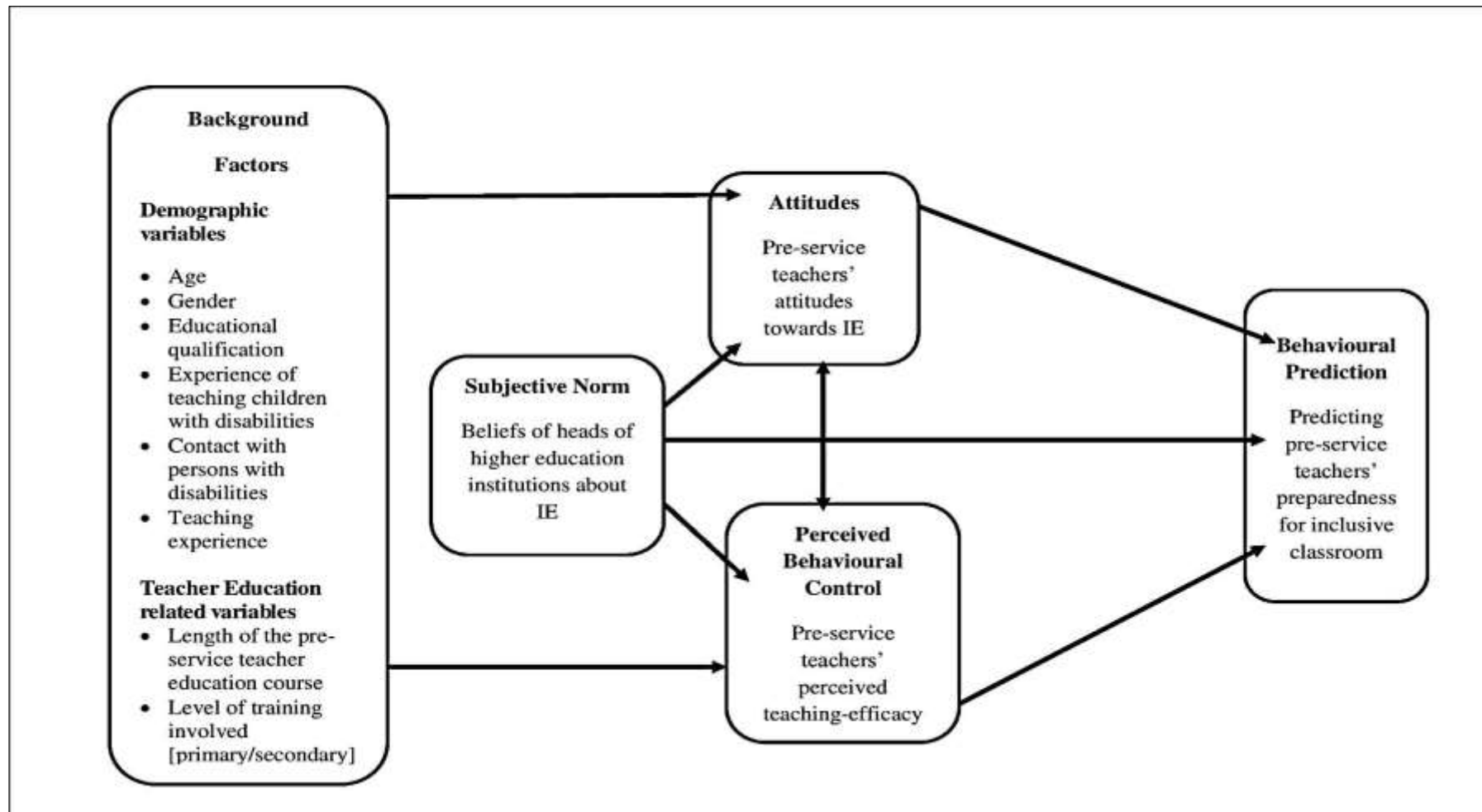
Research Questions

This study aimed to answer the following research questions:

1. What is the level of attitudes, perceived teaching-efficacy and concerns pre-service teachers have regarding teaching in inclusive schools of Bangladesh?

2. Is there any significant relationship between pre-service teachers' attitudes, perceived teaching-efficacy and concerns about IE and the following variables:

   age;

   gender;

   educational qualification;

   teaching experience;

   length of the pre-service teacher education course;

   level of training involved (primary/secondary);

   experience of teaching children with disabilities; and

   contact with persons with disabilities?

3. Is there any significant relationship in pre-service teachers' attitudes, perceived teaching-efficacy and concerns towards IE?

4. What are the beliefs of the heads of departments of higher education institutions about IE?

5. What challenges do heads of departments of higher education institutions perceive in preparing pre-service teachers for inclusive classrooms?

6. What strategies do the heads of departments of higher education institutions consider necessary to address the challenges?

Outline of the Study

The thesis consists of seven chapters organised as follows:

- Chapter 1 provides a general introduction, conceptual frame, research questions and presents the structure of the thesis.

- Chapter 2 provides background information relevant to the context of the study in a published paper. Paper 1, titled 'The journey towards inclusive education in Bangladesh: Lessons learned', presents a review of literature investigating IE policies and reform initiatives that arose in Bangladesh in response to international declarations.

- Chapter 3 submits a critical review of the research literature related to pre-service teachers' attitudes towards, teaching-efficacy for and concerns about IE for understanding their preparedness for inclusive classrooms in Bangladesh.

- Chapter 4 describes the methodology for the two phases of the study including participants, instruments and tools applied, data analysis procedures and ethical considerations undertaken in this study.

- Chapter 5 includes two published papers. They report on the status of pre-service teachers' preparedness for IE by exploring their attitudes towards, teaching-efficacy for and concerns about IE in the context of Bangladesh. The first used quantitative methods in Phase 1 of the study and the other used qualitative methods, in Phase 2. The papers also report the impact of background variables on pre-service teachers' attitudes, teaching-efficacy and concerns regarding IE in the socio-cultural context of Bangladesh.

- Chapter 6 presents, in two published papers, the findings from the qualitative methods followed in the Phase 1 of the study regarding the beliefs of the heads

of the higher education institutions that offer pre-service teacher education in Bangladesh.

- Chapter 7 discusses the study findings in light of the existing literature and presents the limitations, implications of the study and includes some further research ideas generated through this study.

It is acknowledged that, consistent with the nature of a thesis that includes published papers, some repetition may occur across the papers and in the chapters. The researcher has made every attempt to minimise this overlap.

CHAPTER 2

Inclusive Education Policy and Reforms in Bangladesh

Introduction

"Eliminate discriminations on grounds of nationality, religion, class and gender; build up an environment that promotes secularism, global-brotherhood, and empathy towards humanity and respect towards human rights" ---National Education Policy 2010 (Ministry of Education [MOE], 2010, p. 1).

This chapter discusses in the form of a published paper the IE policies and reform initiatives that took place in Bangladesh in response to international declarations, constitutes this chapter. Paper 1 titled 'The journey towards inclusive education in Bangladesh: Lessons learned', provides a review of the documents collected from secondary sources to understand, specifically, the policy reforms regarding IE and the public sector IE interventions at primary and secondary levels of education in Bangladesh.

The critical review of the policy documents presented in this chapter indicated that the Government of Bangladesh enacted several policies attempting to ensure inclusion of children with disabilities and disadvantaged children into education, yet several policies still contain some discriminatory statements. The paper also reviewed some of the major public sector interventions regarding IE, such as Phase 2 of the Primary Education Development Programme (PEDP II) and the Teaching Quality Improvement (TQI) Project. From the review, it would seem that Bangladesh has

achieved some success in ensuring equity into education (i.e. increased participation of girls and children with disabilities) despite the system facing, and continuing to face, several challenges. The issues that emerged from the review of both the policy and intervention initiatives reflect inadequate revision of the pre-service teacher education curriculum and insufficient preparation of the teacher educators for the implementation of IE.

Declaration for Publication

This paper has been published in an international peer-reviewed journal titled Prospects managed by the UNESCO Head Office and published by Springer Publishers, considering the subject matter and the aims, scopes and circulation of the journal.

Reference:

Ahsan, M. T. & Mullick, J. (2013). The journey towards inclusive education in Bangladesh: Lessons Learned. Prospects, 43 (2), 151-164. doi: 10.1007/s11125-013-9270-1

Declaration by candidate

The nature and extent of contributions to the work involved the following:

Name	Nature of contribution	Extent of contribution (%)
M. Tariq Ahsan	Initiation of the concept of the manuscript, development of ideas, prepared the draft manuscript jointly, incorporated other author's comments in final manuscript, prepared and submitted for publication; First Author	50%
Jahirul Mullick	Initiation of the concept of the manuscript, development of ideas, prepared the draft manuscript jointly, incorporated other author's comments in final manuscript, Co-author	50%

Candidate's Signature		Date	17 July 2013

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:

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OPEN FILE

The journey towards inclusive education in Bangladesh: Lessons learned

M. Tariq Ahsan · Jahirul Mullick

Abstract   Several international declarations, signed over the last few decades, are helping to promote Education for All, by eliminating inequalities in both society and education systems. This article, a descriptive review of policy documents and reform initiatives, reports on ways the Government of Bangladesh has responded to these international declarations. The review focuses on issues that promote the inclusion of diverse learners in mainstream primary and secondary schools. The most recent policy in Bangladesh, the National Education Policy 2010, also attempted to address inclusive education. Two major reform initiatives endorsed inclusion: the Second Primary Education Development Program and the Teaching Quality Improvement project. To some extent, these projects brought the philosophy and implementation strategies of inclusion into the country's existing education system. Other initiatives are promoting collaborations between state and private agencies. Lessons from these policies and initiatives should help other developing countries achieve the goals of Education for All through inclusive education.

Keywords   Inclusive education · Education for All (EFA) · Diverse children · Public sector interventions · National policies · Bangladesh

The concept of inclusive education (IE) has been reflected in various declarations and policy documents on international human rights. The journey towards IE began in 1948, when the UN declared the right to education for all in Article 26 of the Universal Declaration of Human Rights (UN 2007). In the last two decades, the international community witnessed the release of several key guiding policies related to IE, including the Convention on the Rights of the Child (UN 1989), the World Declaration on Education for All (UNESCO 1990), the Salamanca Statement and Framework of Action (UNESCO 1994), the Dakar Framework for Action (UNESCO 2000), and the UN Convention on the Rights

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of Persons with Disabilities (UN Enable 2008). The core significance of all these policies is that they are addressing and responding to the diverse needs of *all* children, including those with special needs, and treating them equally in society and school. The focus of IE is to reform the education system to fit the learners, rather than expecting the learners to fit the system; it rejects the notion that those learners who cannot fit in will be excluded from the system. Thus, the social model of inclusion encourages IE by recognising diversity and performing in ways that support diverse learners in the regular system.

The special education approach was established based on the philosophy behind the medical model, but a significant change in the early 1980s supported the integration of children with special needs into mainstream schools, particularly in countries of the north (Opertti and Belalcazar 2008; Polat 2011). Although integration attempted to address the segregation problem for these children, it did not ensure their full participation in school activities. Similarly, the full participation of students from different backgrounds is still ignored in the "mainstreaming" approach, because it does not place such children in regular classrooms full time (Dyson 2001). In addition, in the mainstreaming approach, support teachers often withdraw students with different abilities from their regular settings to offer them special support (Forlin 2006). In contrast, IE advocates the full participation of *all* learners. As Polat (2011) argues,

> 'Integration' refers to the partial or full physical placement of disabled learners in mainstream schools while 'inclusion' is much more than physical presence. Inclusion involves the process of changing values, attitudes, policies and practices within the school setting and beyond. (p. 51)

The social justice issue leads IE practitioners to think of reforming the whole school and in fact to go beyond that. Social justice cannot be achieved if students are excluded from schools because of their gender, class, race, or ability (Ryan 2006). The concept of social justice provides strong theoretical support to IE. In the last few decades, those promoting social justice have raised another question: Should we consider children with different abilities, including disabilities, from the "medical" or the "social" model of disability? Most arguments in this debate have criticized the medical model, as it tends to consider differing abilities as examples of deviance that must be treated and handled separately from the mainstream (Loreman, Deppeler, and Harvey 2005). The medical model has helped to justify such discrimination from the perspective of educational rights and human rights; in its efforts to support children, it points out their deficits first, rather than improving teaching-learning approaches to address the needs of all children (Ainscow 1997).

Ainscow and Miles (2008) elaborated on the social model by proposing three points known as a "principled approach to education". They describe these points:

> [...] the process of increasing the participation of students in, and reducing their exclusion from, the curricula, cultures, and communities of local schools; restructuring the cultures, policies and practices in schools so that they respond to the diversity of students in their locality; and the presence, participation and achievement of all students vulnerable to exclusionary pressures, not only those with impairments or those who are categorized as having special educational needs. (p. 20)

It is apparent from the "principled approached to education" that the inclusion philosophy promotes equity and fairness in schools and broadly in society; those values are also the fundamental doctrines of social justice. Most commentators on social justice acknowledge that their focus is the full and equal participation of everyone in a society, which leads to

fairness and welfare for *all* (Bell 2007; Miller 1999; Nussbaum 2006; Rawls 1971; Sen 2005). If all children are considered, then no one can be left behind because of race, beliefs, class, gender, ability, or other factors. Education can provide the agency that people need to fully exercise their citizenship in moving towards social justice; therefore everyone must be included in school.

It is apparent from this description of the social model and the principled approach to education that IE is much more than a matter of bringing all children into regular education; rather, it is a "process aimed to offering quality education for all while respecting diversity and the different needs and abilities, characteristics and learning expectations of the students and communities, eliminating all forms of discrimination" (UNESCO 2009, p. 18). The recent guideline prepared by UNESCO (2009) based on the 2008 International Conference on Education (ICE) recommended that all member states acknowledge IE as their reform strategy through developing national and inter-sectoral policy frameworks to address social inequality. Further, the ICE 2008 report suggested that all member states develop policies and strategies that would ensure a high quality of education for learners from diverse backgrounds and various mother tongues in the regular schools. Hence, it is important for every signatory country that their policies support IE in the regular schools and that those policies do not contradict the values of IE.

Bangladesh is a signatory on all the international declarations and policies that address IE; it started its journey towards IE reforms by enacting the Compulsory Primary Education Act 1990 in the early 1990s. Since then, Bangladesh has been trying hard to achieve both quantitative and qualitative development in education. During the last decade, it has made significant progress in closing the gender gap in enrolment at both the primary and secondary levels (ADB 2010). It has also made progress in the primary enrolment rate, crossing the 90% mark in 2006 (DPE 2008). Despite recent improvements, challenges remain in implementing IE in the education system. In this article we report on findings from a descriptive review of legal and normative policy frameworks, and current initiatives for implementing IE in Bangladesh. Our review acknowledges achievements and identifies challenges that might guide the design of future interventions to facilitate IE in Bangladesh.

Review design

This descriptive review includes a wide range of national documents, including research reports, government policies and acts, progress reports on various national programmes, reports from electronic sources, pamphlets, and newsletters from institutions. We followed a systematic process to identify the documents for review. We started by reviewing the websites of the two ministries in Bangladesh that oversee education: the Ministry of Education (MoE) and the Ministry of Primary and Mass Education (MoPME). MoE is dedicated to secondary and third-level education and MoPME to early childhood, primary, and mass education. To identify relevant links, we used a variety of key words, including policy, act, Education for All, inclusive education, integrated education, special education, equity, and vulnerable children. We also used the two key words "policy" and "act" to identify documents from two other websites: those of the Ministry of Women's and Children's Affairs (MoWCA) and the Ministry of Social Welfare (MSW). We included these two websites in the review process because their policies and laws are connected to IE practices in Bangladesh. We browsed all 152 of the links in these four sites to gain

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information and electronic copies of published documents. When no electronic source was available for downloading, we obtained a paper copy to review.

Moreover, our review process included the websites of the Directorate of Secondary and Higher Education (DSHE) and the Directorate of Primary Education (DPE) because our major focus is primary and secondary education in Bangladesh. On these sites, we browsed the sections that included publications, projects, and programmes to promote IE, along with office orders and circulars related to IE. Of the 16 documents at the DPE website, we reviewed 9 that were related to IE; of the 15 documents on the DSHE website, we reviewed 8. Below, we review several of these projects and programmes. As we reviewed all these documents, we used the lens of the social model that promotes a principled approach to education (Ainscow and Miles 2008). That is, we defined IE as not only the presence or participation of those who are usually excluded; we also included the achievement of all children in mainstream education settings.

Policy reforms for inclusive education

Over the last few years, Bangladesh has developed several national policy initiatives that can promote IE. The government has recognized IE as an approach to achieving the goals of Education for All (EFA). In the course of its inclusive reforms, it developed some remarkable policy initiatives to promote IE in Bangladesh. After signing the EFA in 1990, Bangladesh enacted the Compulsory Primary Education Act 1990 (MoPME 1990), which has been formally implemented since 1992. Though this act made primary education compulsory and free for all children, it did not mention the necessity of IE. Moreover, its Section 27.3.3 (e) promoted the medical model by supporting discrimination against children with disabilities with this wording: "the decision of a primary education officer that it is not desirable to enter a child in a primary education institute on account of its being mentally retarded" (MoPME 1990, p. 1). In 2001, to support the rights of persons with special needs, the country enacted the Bangladesh Persons with Disabilities Welfare Act 2001. This act gave children with special needs the legal right to be mainstreamed in different spheres of life including education (MSW 2001). The welfare act also said that children should be provided with an accessible environment and that teacher preparation was important to ensure that children with special needs would be included in education. This act was the first legal framework ensuring the educational rights of people with special needs. However, it suggested segregated educational settings along with including children with disabilities in mainstream education.

Since then, Bangladesh developed the Draft National Child Policy 2010 (MoWCA 2010); it declares that any person under age 18 should be considered a child, and emphasizes not discriminating against children in different sectors including education. It places a special emphasis on girls, to ensure gender equity. The education section places an emphasis on children who are having difficulty gaining an education due to poverty, ethnic backgrounds, or other factors (p. 7). It also places a special emphasis on the rights of children with special needs and children with autism. Section 6.7.2 articulates the values of inclusion as follows: "Initiatives will be taken to ensure inclusion of children with disabilities in the mainstream society including participation in education" (p. 9). However, the same section proposes a segregated model of education for some children with special needs, but gives no clear indication about how a group of children with disabilities would be provided special education (p. 9). Similarly, it suggests segregated education for children with autism.

After it became independent in 1971, Bangladesh formed a series of education commissions that prepared reports in 1974, 1988, 1997, 2003, and 2009. The National

Education Commission report of 1997 (MoE 1997) was the first to recognize IE as a strategy to include disadvantaged children in the education system to ensure education for all. The National Education Policy of 2010 (MoE 2010) also saw IE as important, but it took a confusing stand somewhere between mainstreaming and inclusion. In its goals and objectives section, it mentions the necessity of including in the mainstream education system various groups of children: girls, children with special needs, children from ethnic communities, and children who are disadvantaged by socio-economic factors. Four of its goals and objectives address the values of IE:

#07: Eliminate discrimination, on the grounds of nationality, religion, class and gender; build up an environment that promotes secularism, global brotherhood, and empathy towards humanity and respect towards human rights
#22: Bring all socio-economically disadvantaged children into education including street children
#23: Ensure the development of the cultural and linguistic characteristics of all indigenous and ethnic groups in Bangladesh
#24: Ensure the rights of all children with disabilities. (MoE 2010, pp. 1–2)

The pre-primary and primary education section of the 2010 policy emphasized several reform ideas that promote the values of IE. These ideas include ensuring that all children can learn their native language, providing physical and assistive facilities, providing food and stipends to children from poor families, introducing flexibility into school schedules in remote areas, and establishing separate toilet facilities for girls.

The policy also placed a priority on introducing pre-primary and primary teachers to the ideas of IE, by preparing "at least one trainer specialized in one area of disability for every Primary Teachers' Training Institute" (MoE 2010, p. 7). However, the document also expressed several concerns about the deficit model that is the basis for teacher preparation programmes, using several terms: "[…] very traditional, incomplete, certificate-oriented, theory-based, providing less practical opportunities, rote-learning based […]" (p. 56). In addition, it did not address IE adequately at the secondary, tertiary and non-formal education levels.

One noteworthy milestone of policy change is the National Plan of Action Phase II (NPA II), which the Ministry of Primary and Mass Education (MoPME 2003) developed to ensure basic primary education by 2015; it is to be implemented between 2003 and 2015. The document describes Vision 5.2.iii of the NPA II as follows:

All primary school-age children (6–10 years), boys and girls, including all ethnic groups, disadvantaged and disabled, are enrolled and successfully completing the primary cycle and achieving quality education. (p. 28)

This action plan aimed to implement IE in primary schools by 2015. As a result of the NPA II, the Directorate of Primary Education (DPE) sent an office order or circular (DPE 2007) to all the primary schools in Bangladesh, instructing them to include all children in their regular programmes and to provide required support. Moreover, the country undertook large-scale projects to ensure it was providing education for all, including the Second Primary Education Development Program (PEDP II), which we discuss below.

Reform interventions in the primary education sector

Primary education in Bangladesh is free and compulsory for all children aged 6 to 10; it lasts for 5 years (grades 1 to 5). The Second Primary Education Development Program

(PEDP II) is the major initiative that supports IE through mainstreaming marginalized children, including those who are working, or living in poverty, those who have special needs, and those from ethnic communities. PEDP II was launched in 2004 (DPE 2007) and ended in mid-2010, with a one-year extension (Sabur and Ahmed 2010). Two other projects, the Primary Education Stipend (PES) project and Reaching Out-of-School Children (ROSC), also support the goal of Education for All. In the following sections we briefly describe the design, tasks, and progress of the PEDP II, PES, and ROSC projects.

Second Primary Education Development Programme (PEDP II)

PEDP II was implemented by the DPE, for the mainstream primary education sector with coordinating support from development partners (DPE 2006a). Its overall goal was to provide quality education and make primary education accessible for all children of primary school age (DPE 2007). The fourth component of PEDP II focused on ensuring and facilitating access to quality schooling for all children, especially those who are marginalized (DPE 2009a). The IE framework of PEDP II highlights four areas: gender, children with special needs, ethnic children, and vulnerable groups (e.g., children living in urban slums, street children, refugee children, children from very poor families). Action plans were also developed based on these four themes. The plans were developed to be implemented at three levels: central (ministry and directorate level), district (the middle administrative level), and school. To achieve the goals of the PEDP II, two significant interventions were introduced: the PEDP II innovation grant and a decentralization plan.

PEDP II innovation grant

The goal of the PEDP II innovation grant is to "enhance the role of the school community in meeting the needs of children with social, economic, intellectual or physical impairments, or disadvantages that reduce their ability to attend and complete primary schooling" (DPE 2006b, p. 1). It was expected to promote practical and creative ways to enhance the quality of education for marginalized children. The grants were available from the PEDP II fund, with a particular focus on carrying out the project at the school level in collaboration with communities, the government, and civil society (DPE 2006b). So far, seven projects have been completed with support from innovation grants (DPE 2007).

SLIP and UPEP for decentralization

Two important activities promoting decentralization under PEDP II are the School-Level Improvement Plan (SLIP) and the Upazila Primary Education Plan (UPEP); *upazila* means sub-district in Bangla. Since 2006, UNICEF has provided technical support to the DPE to develop both plans. Implementation of both plans started in 2007 on a pilot basis across 26 sub-districts (DPE 2007). SLIP aimed to encourage community involvement in school activities and to empower members of the community to make policy decisions at the school level. It was expected that through SLIP, parents, teachers, members of school management committees (SMCs) and local communities would work together to improve the quality of learning for all children (DPE 2009a). SLIP worked as a voice from the roots to prevent the exclusion of students disadvantaged by gender, special needs, ethnicity, and socio-economic background. SLIP's activities focused on strengthening head teachers and teachers, increasing their professional motivation, and empowering school communities to

enhance their sense of ownership of the school. UPEP was implemented by involving local government leaders and government officials. UNICEF (2009) reported that the decentralized management of the school calendar has improved school administration in rural areas. Through these school planning exercises, communities and SMCs have become more involved in school management and supervision.

Primary Education Stipend (PES) project

The Primary Education Stipend project was officially launched by the government in mid-2002. Its goal was to support more than 5 million disadvantaged primary school students living in rural Bangladesh, by providing them with cash assistance. It had five objectives: (a) increase the enrolment rate of all school-aged children from poor families; (b) increase their attendance rate; (c) reduce their dropout rate; (d) establish equity in financial assistance to all children of primary school age; and (e) enhance the quality of primary education (MoPME 2010). The action plans emphasized providing 100% stipend support to four targeted groups that tended to be excluded from primary education. The second phase of the project, currently in operation, will be completed in 2013 (MoPME 2010). To be eligible for the stipend, students must achieve marks of 40% on the end-of-year examination and attend 85% of classes each month.

Reaching Out-of-School Children (ROSC)

The major goal of ROSC was to reduce the number of out-of-school children through improved access to quality education. The project was designed to complement the PEDP II by identifying children who are not yet in school (UCIL 2011). It aimed to take the initiative in areas that are relatively substandard, considering the net enrolment rate, primary cycle completion rate, level of poverty, and gender parity. The project was implemented in 60 sub-districts in 34 districts of Bangladesh. It operated for six years (2004–2010) and DPE was responsible for it (MoPME 2010). A ROSC school locally known as the Ananda School (School of Joy) enrolled only those children who had never been enrolled in any school or had dropped out of school more than a year earlier (DPE 2009b). The ROSC project had several key achievements:

- It mobilized stakeholders, raised awareness about primary education, and motivated out-of-school children to enter school.
- It provided education allowances to the enrolled children to support them in continuing and completing their schooling. It also provided grants to the schools to improve the overall quality of education.
- It established a sound structure to manage and implement the project and develop the capacity of service providers by forming a network coordinating body (PAL 2011).

The project has been extended and will be terminated in mid-2013 (MoPME 2010).

Reform interventions in the secondary education sector

At the secondary level, IE is still being implemented on a small scale. The secondary education sector in Bangladesh consists of two levels: secondary (grades 6 to 10) and higher secondary (grades 11 and 12). The government is running projects like the Female

Secondary School Stipend Project (FSP) and Teaching Quality Improvement in Secondary Education Project (TQI-SEP) that promote IE at the secondary level.

Female Secondary School Stipend Project (FSP)

The MOE began running the FSP in 1982 (Raynor and Wesson 2006). Initially implemented in six areas of Bangladesh, it has been expanded nationwide since 1994. It has been funded by the World Bank, the Asian Development Bank, and the governments of Norway and Bangladesh (Directorate of Secondary and Higher Education [DSHE] 2011; Schurmann 2009). This programme provided tuition for female students and monthly stipends for unmarried rural girls up to grade 10. To be eligible for this stipend, the students had to be unmarried, and had to achieve at least 75% attendance and marks of 45% on examinations. This project has dramatically increased the participation of female students: in 2006, girls represented 52% of the total of students. Moreover, instances of early marriage have decreased, women are more empowered, and they have more employment opportunities (DSHE 2011; Raynor and Wesson 2006; Schurmann 2009). The programme undoubtedly contributed to the success of IE by eliminating the gender disparity in Bangladesh. Recently, the government extended the stipend project to grade 12 (DSHE 2011) and approved a project to fund female students at the undergraduate level as well (DSHE 2010). The FSP has clearly been a successful innovation, encouraging girls in Bangladesh to participate in education.

Teaching Quality Improvement in Secondary Education Project (TQI-SEP)

The TQI-SEP (2010) project, which ran from April 2005 until September 2011, was committed to enhancing the quality of secondary level education through four components. These were improving teacher quality through organizational development and capacity building, improving teacher training facilities, strengthening in-service and pre-service teacher training, and increasing equitable access and improving community involvement. IE is one focus of this project. TQI-SEP (2009) defined the target group of IE in secondary education of Bangladesh as girls not enrolled in secondary education, children from ethnic communities, children working either with their families or outside the home, and children with special needs. Table 1 presents the initiatives taken to implement IE through TQI-SEP.

Discussion and conclusions

We have reported on policy initiatives and public sector interventions that addressed the values of IE at the primary and secondary levels in Bangladesh. Now we offer a critical analysis of the policy and practices to consider whether the initiatives actually facilitate IE. We then discuss public sector interventions in primary and secondary education, and conclude with some specific recommendations to further improve the policy and practices.

In response to the EFA declaration (UNESCO 1990), many countries around the world made major shifts in their education policies to ensure the right to education for all of their citizens. Brazil, for example, enacted the Law of Directives and Bases of Education (LDB) in 1996 (Santos and Silva 2009), South Africa passed the Bill of Rights 1994 (Naylor 2009), and Malaysia approved the Education Act 1996 (Gomez 2004). Similarly, the Compulsory Primary Education Act 1990 is considered to be the first legal foundation supporting IE

Table 1 TQI-SEP initiatives promoting IE at the secondary level

Area of initiatives	Features related to IE
Pre-service teacher training curriculum	The B. Ed curriculum was revised in 2006; IE concepts were embedded in various sections.
Standards for teacher training institutions	One component of these standards was promoting inclusion.
Standards for schools	The project set a standard for a quality school that included ensuring access for children with disabilities and creating a female-friendly environment.
Involvement of SMCs and head teachers	Orientation training on IE was introduced for SMC members and head teachers. The training manual clearly defined the concept of IE, along with an inclusive learning-friendly environment, and the roles of teachers and SMC members in promoting IE in secondary schools.
Classroom teachers	Continuous professional development (CPD) was suggested to develop classroom teachers.
	A manual on IE was developed for the CPD; it introduced curriculum flexibility techniques and emphasized meeting individual learning needs.
	A resource book on IE was also prepared for classroom teachers.
	Parent and community involvement was encouraged.
Teacher educators	Teacher educators involved in pre-service and in-service teacher education would receive training on IE from IER, Dhaka University and also earn postgraduate degrees from abroad.
Innovation and Development Fund (IDF)	IDF provides up to three years of funding to any local and state-private collaborations that facilitate teacher training and improve school-level quality.
	It supports innovations relevant to girls, children from disadvantaged backgrounds, and children with disabilities.
	It also supports initiatives that promote learning/educational materials and materials that assist with special needs.

Source: TQI-SEP (2006, 2008, 2009, 2010)

movements in Bangladesh. Still, our analysis of this act found that it discriminates against children with intellectual disabilities by not ensuring their access to regular primary education. This medical model perspective is a barrier to achieving the goals of IE. Other studies echo this observation about policy reforms in Bangladesh (Ahsan 2006; Ahsan and Burnip 2007; Grönlund, Lim, and Larsson 2010; Munir and Zaman 2009).

The Bangladesh Persons with Disabilities Welfare Act 2001 mentioned the right to education of children with disabilities. But it also supported mainstreaming rather than inclusion and some of its sections even promoted segregated education systems. The National Education Policy 2010 also paid little attention to facilitating the values of IE, although it recognized IE as an approach to achieve education for all citizens. IE is not fully considered as the "principled approach to education" in the recent education policy. It also became evident during our review that Bangladesh has no national strategy for IE. We also found that the education policy did propose to make teacher education programmes inclusive and expressed some concern about the status of the country's current teacher education system. This is an indication that policy reforms and practices must be brought into harmony, as specified in the ICE 2008 recommendations, so that they all promote IE in regular schools in similar ways and do not contradict each other.

Another weakness of the recent education policy is that it did not provide equal emphasis on IE for all sectors of education. This policy placed major emphasis on the

primary education sector, but neglected the secondary, higher, and non-formal education sectors. In addition, the policy included integrated education and special education as alternative approaches for educating children with special needs. It also allocated major responsibility to Bangladesh's special education sector to prepare children with special needs, to give them the initial readiness they need to fit into mainstream education. Still, we see no comprehensive approach to IE in addressing issues related to disadvantaged children. For example, this policy recognized that the languages of ethnic communities should be the medium of classroom instruction, but did not mention the use of Bangla sign language for children with hearing impairment. Nor did it consider alternative communication methods for children with autism and those who are intellectually challenged. Therefore, it is apparent from our analysis of the recent education policy that policymakers were hesitant to promote IE and could not fully move out of the shadows of the segregation and medical model.

The Draft National Child Policy 2010 placed special emphasis on disadvantaged children and children with disabilities and autism, to ensure they are included in efforts at education and development. However, the same section of the policy included discriminatory views based on the medical model. For instance, it stated that special education would be provided for children with disabilities who were not able to participate in the regular education for some "unavoidable reasons" (MoWCA 2010, p. 9). It is disturbing to see the discriminatory phrasing used in the primary education act of 1990 still being used in the child policy of 2010—a full two decades later. In summary, our analysis reflects that all the policies and acts remain silent or are inequitable about issues related to creating equal access for children with special needs, and moving them into mainstream education. Based on our analysis, it can be argued that all the policies partially addressed some of the issues of IE but failed to focus clearly on the goals recommended in the 2008 ICE report (UNESCO 2009). As these policies failed to address the needs of all learners and suggested segregated education for some children, the question remains: Are Bangladesh's policies promoting inclusion to ensure social justice, or are they upholding segregation?

In the primary education sector, Bangladesh can point to several achievements: a better net enrolment rate, and gender parity in both enrolment and completion of primary education. Developing action plans to achieve EFA through IE by targeting four marginalized groups has also been an effective strategy, one that reflected the values of IE (UNESCO 1994). Similarly, SLIP, an effective approach to empower local communities and involve them in school activities, can facilitate the implementation of IE, particularly in rural areas. The World Bank (2007) and UNESCO (2008) reported that in many countries, involving the local community in school activities and empowering them through school-based management enhanced equity and improved the efficiency of resource use. Recognizing the educational rights of all children and focusing on out-of-school children in policy and public interventions were good starting points for Bangladesh's move towards IE. The innovation grant project was also a notable milestone in promoting IE through public-private partnerships.

Despite substantial progress in public interventions, progress is slow on improving the quality of education for all children, especially the marginalized (ADB 2008). High rates of repetition (average 12%), dropout (13%), and student absenteeism (19%) are challenges that indicate the need to sharpen the focus of future interventions. The Primary Education Stipend project was designed to increase enrolment rates and reduce repetition, dropout, and absenteeism. Although the project has succeeded in increasing the enrolment rate, recent studies (Chowdhury, Chowdhury, Hoque, Ahmad, and Sultana 2009; DPE 2009a; Nath and Chowdhury 2009) make it clear that the stipend project needs further review.

Similarly, the ROSC project must be extended to high-dropout rural areas where most people are poor and landless.

At the secondary level, TQI-SEP is largely responsible for the implementation of IE. Though the National Education Policy 2010 placed limited emphasis on implementing IE at the secondary level, the government took some initiative to support IE there. These initiatives included reforming pre-service and in-service teacher education curricula, defining the standards for an inclusive learning-friendly environment, preparing human resource development materials, improving classroom practice, and involving stakeholders. TQI-SEP is still implementing IE on a pilot basis in three districts of Bangladesh. However, Dean (2007) identified some limitations of these initiatives: teacher trainers believed that IE was synonymous with special education and that a certain group of children with physical disabilities should be taught in special schools. They also believed that IE was more appropriate for primary education than secondary level. It is a concern that the teacher educators who are responsible for preparing prospective teachers in Bangladesh misinterpreted the concept of IE. Such misinterpretation among teacher educators in Bangladesh regarding the concept of IE has also been reported in several other recent studies (Ahsan, Sharma, and Deppeler 2011, 2012). Similar findings were identified by a study in Cyprus (Angelides, Stylianou, and Gibbs 2006): although higher education institutions claimed they were preparing teachers from a broadly conceived IE approach, pre-service teachers saw this as confined to special education (i.e. deviant, abnormal, special needs) in their lesson plans. It is clear from the findings of these two studies that anyone revising policy to promote IE must ensure that the various stakeholders interpret the reformed policies clearly and correctly.

Gender discrimination has long been an issue in South Asian countries. Studies conducted in Nepal (Acharya 2007), Sri Lanka (Jayaweera and Gunawardena 2007), and Bangladesh (Nasreen and Tate 2007) on social inclusion, gender, and equity found that females are discriminated against in every sphere of life, starting at birth. This affects their nutrition intake, and their access to health care and education, as well as their employment prospects. In this regard, the FSP, which increased the numbers of girls participating in education, can be considered a model to improve their psycho-social lives and their potential livelihoods (DSHE 2011; Raynor and Wesson 2006; Schurmann 2009). Still, some researchers have questioned the success of this project because it did not include the ultra poor citizens and because the programme became politicized during its implementation (Asadullah and Chaudhury 2006; Das, Do, and Özler 2004). Despite those criticisms, this project largely helped Bangladesh to achieve gender parity, and other South Asian countries could benefit from its experience with FSP.

In conclusion, our analysis indicates that the necessity of IE is felt and frequently mentioned in various acts and policies in Bangladesh, though some parts of the policies contain some discriminatory phrases. More inclusive language should be embraced in the policy documents to guide IE initiatives more effectively. Moreover, it is clear from our review that these documents do not reflect the principled approach to education based on the social model. Instead, those policies promote the segregation and mainstreaming based on the medical model. Therefore, the Compulsory Primary Education Act 1990 and the Bangladesh Persons with Disabilities Welfare Act 2001 require substantial revision if they are to meet the requirements of IE reforms suggested in the ICE 2008 (UNESCO 2009). The National Education Policy 2010 also requires amendment so that IE can be implemented thoroughly throughout the primary, secondary, and higher education sectors. A national plan of action for IE is required to cover all sectors of education. Models like the PES project and the FSP need to be continued with appropriate implementation strategies

to ensure they have their intended impact: increasing the enrolment of children who have been excluded, particularly girls. Further studies on the impact and interpretations of those policy documents and initiatives in different areas of the education system (e.g., teacher preparation programmes, school leadership, and curriculum reforms) could provide clearer understanding of the current IE situation in Bangladesh. A comparative study involving several developing countries could be beneficial, allowing them to learn from each other's experiences.

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Chapter Summary

The review of policy and program documents regarding IE in Bangladesh presented in Paper 1 revealed that Bangladesh has made good progress in IE-related policy reform initiatives. One observation regarding the policy initiatives was that the initial policies (i.e. The Compulsory Primary Education Act 1900) contained some discriminatory statements. Subsequent, more recent policies (e.g. The National Plan of Action Phase II; and The National Education Policy 2010) do not, however, contain discriminatory statements. Further, it is apparent that the Government IE program initiatives in Bangladesh have achieved some progress towards IE goals, shown by an increased number of children with disabilities and girls enrolled in schools. However, there are several identified areas that require further improvement to ensure those who have newly enrolled through the IE programs receive a high quality of education and successfully complete their schooling. The review indicated that inadequate preparation of pre-service teachers is, largely, due to the emphasis on traditional and rote-learning teaching methods in teacher education programs in Bangladesh. Background factors that may impact pre-service teachers' preparedness for IE in general are not discussed in Paper 1 but are critically reviewed in the next chapter.

CHAPTER 3

Pre-service Teachers' Preparedness for Teaching in Inclusive Education Classrooms: A Review of Literature

Introduction

Inclusive education is useful for teachers and other education stakeholders because it addresses the key indicators of realizing quality education for all: presence, participation and achievement. It is therefore important that inclusive education is understood, taken seriously and integrated throughout pre-service teacher education. Initial teacher education is essential in preparing teachers to welcome diversity, offer the highest quality teaching for all and face the many social and educational challenges that exist in classrooms, schools and communities (UNESCO, 2013, p. 6).

Presented in this chapter is a critical review of literature regarding pre-service teachers' preparedness for teaching in inclusive classrooms. Several studies have investigated factors that can influence pre-service teachers' readiness for IE. This section includes a review of literature specifically focused on the variables (i.e. demographic information, information relating to teacher education courses) that may influence pre-service teachers' attitudes, teaching-efficacy and concerns about IE. This chapter only discusses some of the most relevant studies related to the constructs investigated in this research. Further review of the literature related to each of the constructs is available in the published, peer-reviewed papers presented in this thesis.

Pre-service Teachers' Attitudes Towards IE

The importance of understanding pre-service teachers' attitudes towards IE for predicting their future performances in inclusive classrooms was pointed out by a number of researchers (Forlin et al., 2009; Kim, 2006; Savolainen, Engelbrecht, Nel & Malinen, 2011; Sharma et al., 2006; Soodak, Podell & Lehman, 1998; Weisel & Dror, 2006). Attitude is a cognitive function that is expressed through the affective domains. It refers to an individual's continuing interpretation, general feeling and liking or disliking of any event, person or behaviour (Tuckman, 1992). Attitude research has shown that pre-service teachers' attitudes towards IE are dependent on several background variables.

While there are various studies that have supported the view that pre-service teachers who are younger in age tend to show more positive attitudes towards IE than their older counterparts (Avramidis & Norwich, 2002; Tait & Purdie, 2000), there are other studies (Caroll et al., 2003; Forlin et al., 2009) which reported that age did not have any significant impact on pre-service teacher attitudes in both pre and post-tests. It would seem that female pre-service teachers in general appear to be more positive towards IE than their male counterparts (Forlin et al., 2009; Kuyini & Mangope, 2011; Loreman et al., 2005; Romi & Leyser, 2006; Tait & Purdie, 2000; Woodcock, 2008). However, there are other researchers, for example, Caroll et al. (2003) and Harvey (1985), who reported that gender does not have any significant impact on pre-service teachers' attitudes towards IE.

Influence of the variables of previous educational background and previous training on pre-service teachers' attitudes towards IE has been examined by a number

of researchers. For example, a study conducted in India with 480 pre-service teachers indicated that participants with a high level of previous education are more positive towards IE than those who had lower levels of education (Sharma et al., 2009). Contrary to this, Caroll et al. (2003) and Forlin and Chambers (2011), in their studies with Australian pre-service teachers, did not find previous educational background of pre-service teachers to be a significant variable impacting on their attitudes towards IE. Positive attitudes were observed in pre-service teachers from Ghana and Botswana who received training on IE compared to those who did not have any such training (Kuyini & Mangope, 2011). Forlin et al. (2009), also, pointed out that previous training that exposed teachers to students with special needs seem to develop more favourable attitudes among pre-service teachers.

There are studies that have examined the impact of experience and contact with persons with disabilities on pre-service teachers' attitudes towards IE. From the analysis of findings of studies conducted in Israeli (Romi & Leyser, 2006), USA (Kim, 2011), Australian (Caroll et al., 2003) and Mexican (Forlin et al., 2010) contexts, it would appear that pre-service teachers who had previous experience and interaction with persons with disabilities show favourable attitudes towards IE. However, Forlin and Chambers (2011), through their study with 67 Western Australian pre-service teachers, found that pre-service teachers who had the most interaction opportunities with people with special needs were less favourable in supporting those children in inclusive settings in comparison to another group of teachers who had limited or no contact. These researchers assumed that contact with children with special needs during the training may have made them aware of their responsibilities but, at the same time, increased their concerns. These mixed results

demand further research be undertaken to explore the effect of these demographic factors on pre-service teachers' attitudes towards IE. Understanding the attitudes of pre-service teachers towards IE would assist identification of areas of reform necessary to make pre-service teacher education programs more effective in achieving inclusive education outcomes.

Pre-service teacher education course content has been shown to have significant impact on pre-service teachers' attitudes towards IE. Several studies (Beacham & Rouse, 2011; Campbell et al., 2003; Cook, 2002; Forlin & Chambers, 2011; Forlin et al., 2009; Kim, 2011; Shippen, et al., 2005; Taylor & Ringlaben, 2012; Varcoe & Boyle, 2014) have found that, after completion of a course on IE, pre-service teachers showed more positive attitudes towards IE. Further, Caroll et al. (2003) reported that the experience of working directly with children with special needs during the course had a noticeable impact on pre-service teachers in minimising their discomfort and increasing their confidence in teaching these children. Carpenter et al. (2005) argued that providing knowledge alone would not be sufficient to prepare pre-service teachers adequately for inclusive classrooms with positive attitudes. Their study suggested that opportunities for practical experience during the teacher education program would be necessary for building up positive attitudes towards IE among the pre-service teachers.

Regarding grade level of teaching, researchers in Australia (Woodcock, 2011) and Mexico (Forlin et al., 2010) found that primary level pre-service teachers hold more positive attitudes on IE than their secondary counterparts. While examining the influence of the length of pre-service teacher education courses as a variable

influencing attitude, a study of 78 pre-service teachers in the USA, conducted by Rademacher, Wilhelm and Hildereth (1998), found that participants who finished the longer duration program (2semesters) showed significantly more positive attitudes compared to those who completed the shorter duration (3 week and 1 semester) programs. Contrary to this, Tait and Purdie (2000) conducted a study with 1,626 pre-service teachers in an Australian context who were enrolled in a 4-year undergraduate and a 1-year postgraduate diploma pre-service teacher education course. Their study did not find the length of the course has any impact on pre-service teachers' preparedness for IE. The inconsistencies in the results of these different studies led the researcher of this study to further explore the impact of demographic variables in Bangladeshi pre-service teachers' attitudes towards IE. It is evident, from the research findings, that the impact of different variables on pre-service teachers' attitudes towards IE is mixed. However, several general trends in factors affecting attitudes of pre-service teachers are observed.

Pre-service Teachers' Teaching-efficacy for IE

One social construct that has gained significant attention from researchers in the field of teacher education is teaching-efficacy. Perceived teaching-efficacy (Bandura, 1997) is a construct that is very similar to Ajzen's (2005) notion of perceived behavioural control described in the TPB. Teachers' teaching-efficacy was conceptualised as their own beliefs and confidence in their capabilities to organise and execute courses of action required for successful accomplishment of a specific tasks in a particular circumstance (Tschannen-Moran, Hoy, & Hoy, 1998). According to the TPB (Ajzen, 1991; 2005), perceived behavioural control is a person's perception towards his or her control over performing a behavioural action through analysis of

available environmental components such as opportunities and resources. Various factors can affect pre-service teachers' teaching-efficacy development. Teachers' teaching-efficacy found to be related to specific contextual factors, subject-matter factors and student diversity issues (Tschannen-Moran et al., 1998). For example, one teacher may have a high level of teaching-efficacy with one group of students in teaching a specific subject-matter but show lower teaching-efficacy in teaching another subject to the same group or teaching the same subject to another group of students (Tuckman, 1992; Woolfolk, 2007). Thus, the nature of teachers' teaching-efficacy makes the concept dependent on different personal and social factors or event-related variables (Bandura, 1997). The next section presents a review of the literature that explored the variables related to pre-service teachers' teaching-efficacy for IE. These variables include age, gender, educational qualification, experience of teaching children with disabilities, contact with people with disabilities, grade level of teaching and teaching experience.

Pre-service teachers' age and gender were found to influence pre-service teachers' teaching-efficacy for IE. Weisel and Dror (2006) claimed that younger pre-service teachers' teaching-efficacy towards children with special needs is much higher than older pre-service teachers. Regarding gender, there are some studies (Erdem & Demirel, 2007; Forlin et al., 2010; Gao & Mager, 2011; Romi & Leyser, 2006; Tait & Mundia, 2014; Woodcock, 2008) that support the view that female teachers have a higher degree of teaching-efficacy than their male counterparts. However, Cakiroglu (2008) examined the impact of gender on pre-service teachers' perceived teaching-efficacy for IE in two countries and found different results: gender was not a

significant factor for predicting pre-service teachers' teaching-efficacy in the USA or Turkey.

There are several studies (Forlin et al. 2010; Liaw, 2008; Malinen, 2013; Moeller & Ishii-Jordan, 1996; Romi & Leyser, 2006) noting that pre-service teachers with past experience of interacting with people with disabilities tend to have higher teaching-efficacy. This experience might be teaching a child with a disability before or having a child with a disability in the family or among close relatives, for example. However, such experience was not shown to have a significant difference in teaching-efficacy in Woodcock's (2008) study with pre-service teachers in an Australian context. Various studies (Brown et al., 2008; Forlin et al., 2010; Lancaster & Bain 2007, 2010; Martinez, 2003; Romi & Leyser 2006; Taylor & Ringlaben, 2012; Woodcock, 2008) reported that participation in IE-related courses seems to increase pre-service teachers' teaching-efficacy towards IE. A recent study by Woodcock, Hemmings and Kay (2012), however, found that little change was noted among pre-service teachers regarding their teaching-efficacy from their participation in an IE-related course. The researchers suggested limited practicum experiences as a possible reason to explain the finding.

Relationships between grade levels (primary or secondary) for which pre-service teachers are being trained and pre-service teachers' teaching-efficacy for IE have been examined widely. Some of these studies (Baker, 2005; Forlin et al., 2010; Woodcock, 2011) found that secondary level, pre-service teachers possess a lower level of teaching-efficacy than their primary counterparts. Woodcock's (2011) cross-sectional study with 467 Australian pre-service teachers found no significant

difference in perceived teaching-efficacy between pre-service primary and secondary level teachers who were at the beginning of their courses. But, validating the findings of other studies, the primary level, pre-service teachers showed higher teaching-efficacy than their secondary counterparts at the end of their teacher education programs.

The studies reviewed, so far, seem to suggest that it is most difficult to draw any firm conclusions about factors that produce consistent results, other than identifying those with potential to predict pre-service teachers' preparedness for IE. However, several general trends have come to light regarding factors affecting teaching-efficacy of pre-service. More research is required to explore these trends further and broaden the investigations into the nature and extent of those variables in preparing pre-service teachers for IE.

Impact of Pre-service Teachers' Concerns on Their Attitudes and Perceived Teaching-efficacy for IE

Several researchers (Loreman et al., 2005; Sharma et al., 2006; Woodcock, Hemmings & Kay, 2012) acknowledged pre-service teachers' concerns about IE to be a significant factor that may influence their attitudes and teaching-efficacy and some went on to look at how this concern affects attitudes and teaching-efficacy. The conclusion of studies conducted by Sharma et al. (2003), Sharma et al. (2006) and Loreman et al. (2005) suggest that, as pre-service teachers become more positive towards inclusion, their concerns decline and vice-versa.

It has been found that pre-service teachers seem to become more concerned after completing courses in IE. For example, in a study with South African pre-service teachers conducted by Oswald and Swart (2011), the participants showed positive attitudes towards IE and had increased levels of knowledge and skills to teach with children with disabilities after participating in an IE-related course. But they were more concerned about unavailability of resources, large class size, extra work load and inadequate support services. Martinez (2003) reported that pre-service teachers' teaching-efficacy became higher after attending the IE course that clarified the responsibilities of general education teachers in inclusive settings, i.e. being aware of legal obligations, being knowledgeable, collaborating with colleagues, but these participants expressed concern about increased workloads. Lambe (2007), as well as Evans and Waring (2006), argued that pre-service teachers' level of concern regarding personal competency to teach in inclusive classrooms may increase after participation in an IE-related course if it inadequately addresses the issue of IE. Furthermore, a study conducted by Forlin and Chambers (2011) found that course participation seems to increase concerns about issues of students' acceptance by their peers, lack of adequate knowledge about IE, having difficulty to provide sufficient attention in an inclusive classroom, increased workload and lack of resources.

Hemmings and Woodcock (2011), similarly, mentioned that some pre-service teachers concerns regarding IE were related to barriers that could hamper IE programs, including negative attitudes of people, inadequate training, lack of teacher motivation, difficulty in time management in inclusive settings, lack of expertise as well as lack of support and resources. This study reported that more support is needed

from teachers, colleagues, parents, resource provision and through professional development to make the program successful.

It has been found that lack of knowledge about inclusive cultures in the pre-service teacher education program can be a concern among pre-service teachers (Wiseman & Garza, 2002). Further, a study with pre-service teachers in the USA, conducted by Cook (2002), found that participants showed a positive attitude towards including children with learning disabilities but they were concerned about including those children who had behaviour disorders or multiple disabilities. Concerns about lack of resources were raised in studies conducted in Chile (Fletcher, Allen, Harkins, Mike, Martinich & Todd, 2010) and Ghana (Agbenyega, 2007). It is apparent that, despite or, in some cases, by, participating in IE-related courses, concerns of pre-service teachers may increase on many dimensions.

As with attitudes and perceived teaching-efficacy, pre-service teachers' concern about IE is significantly related to various background variables. For example, Chong et al. (2007) found that female pre-service teachers were less concerned about IE than their male counterparts. However, Bradshaw and Mundia (2006), as well as Forlin et al. (2009), did not find gender to be a significant predictor of pre-service teachers' concerns about IE. Forlin et al. (2009) reported that age was, also, not a significant predictor of pre-service teachers' concerns about IE. However, they found that pre-service teachers who received prior training in IE were less concerned than those who did not have any such training. The study by Loreman et al. (2005) supported the view that pre-service teachers who had previous experience in teaching children with special needs were less concerned about IE. In another study,

Sharma et al. (2008) compared concerns of pre-service teachers from four countries-Australia, Canada, Singapore and Hong Kong. Their study found that Hong Kong and Singapore pre-service teachers were more concerned about IE than those in Australia and Canada. The researchers concluded that absence of any significant policy to promote IE in the pre-service teacher education curriculum of Singapore and Hong Kong could explain these results to some extent.

CHAPTER 4

Methodology

Introduction

This chapter provides an overview of the methodology employed in this study. Detailed information regarding the specifics of different methods applied in this study is provided in the individual published papers presented in Chapters 5 and 6. Information about the methodology that is not included in those manuscripts is included herein. To begin, the research questions of the study are introduced, after which the research design of the study is presented to describe the participant selection procedures, data collection and data analysis procedures. This is followed by a discussion of the ethical considerations of the study.

Research Questions

1. What is the level of attitudes, perceived teaching-efficacy and concerns of pre-service teachers regarding teaching in inclusive schools of Bangladesh?

2. Is there any significant relationship between pre-service teachers' attitudes, perceived teaching-efficacy and concerns about IE and the following variables:

    age; gender; educational qualification; teaching experience; length of the pre-service teacher education course; level of training involved (primary/secondary); experience of teaching children with disabilities; and contact with persons with disabilities?

3. Is there any significant relationship in pre-service teachers' attitudes, perceived teaching-efficacy and concerns towards IE?

4. What are the beliefs of the heads of departments of higher education institutions about IE?

5. What challenges do heads of departments of higher education institutions perceive in preparing pre-service teachers for inclusive classrooms?

6. What strategies do the heads of departments of higher education institutions consider necessary to address the challenges?

Research Design

This study followed a mixed-method design, using both quantitative and qualitative methods to collect and analyse data. The study was conducted in two phases. In Phase 1, a three-part survey instrument was used. A cross-sectional survey design was followed as this allows the researcher to take a snapshot of the status of a large group of the population (Cohen et al., 2007; Creswell, 2008; De Vaus, 2002). Semi-structured interviews were, also, conducted to explore the views of the heads of the higher education institutions about IE. Findings from the Phase 1 survey indicated that the relationships of three variables, i.e. level of training involved, gender and length of training, with participants' attitudes and teaching-efficacy were in sharp contrast to past research. Consequently, the Phase 2 study was conducted, using semi-structured interviews with the institutional heads to explore their views regarding the contrasting results. The following flow chart (Figure 2) gives a visual representation of the methodology.

Figure 2

Diagrammatic Representation of the Methodology

Aim of the Study
Understanding pre-service teachers' preparedness for IE in Bangladesh

Phase 1

Qualitative Method

Participants   : Institutional Heads [IHs] (n=22)

Instrument   : Semi-structured interview protocol

Data analysis   : Thematic analysis

Questions   : Research questions 4, 5 and 6 were answered

Papers   : Papers 4 and 5 were produced based on this data

Quantitative Method

Participants   : Pre-service teachers (n=1623)

Instrument   : Three-part surveys (Demographic, SACIE & TEIP Scales)

Data analysis   : Mean and SD Calculation, Multiple Regression Analysis (Enter method), Pearson Product-moment Correlations were conducted by using SPSS.

Questions   : Research questions 1, 2 and 3 were answered

Papers   : Paper 2 was produced based on this data

Data Analysis & Interpretations of the Findings

Phase 2

Qualitative Method

Participants   : Institutional Heads [IHs] (n=6)

Instrument   : Semi-structured interview protocol

Data analysis   : Thematic analysis

Questions   : Research question 2 was further explored and answered

Papers   : Paper 3 was produced based on this data

Further Data Analysis & Interpretations of the findings

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Phase 1 Study Methodology

In this phase, both quantitative and qualitative methods were employed - a survey design and semi-structured interview schedules.

Quantitative method

A three-part survey questionnaire containing a series of questions regarding demographic information [see Appendix 9 and Appendix 12], a Sentiments, Attitudes, Concerns regarding IE (SACIE) scale (Loreman, Earle, Sharma & Forlin, 2007) [see Appendix 10 and Appendix 13] and a Teacher Efficacy for Inclusive Practices (TEIP) scale (Sharma, Loreman & Forlin, 2012) [see Appendix 11 and Appendix 14] were employed in Phase 1 of the study. Participants in this first phase were final year/term pre-service teachers (N= 1,623) from primary and secondary level teacher preparation institutions in Bangladesh. A purposive sampling was used to select participants for the survey. Paper 2, presented in Chapter 5, provided demographics as well as detailed information about the selection process of the pre-service teachers, the instruments and data analysis procedures for this phase of the study. In addition, detailed demographic information regarding the 1,623 pre-service teachers who participated in this study is presented in Appendix 18.

Qualitative method

In order to gain a comprehensive understanding of the beliefs and views of the institutional heads (IHs) in relation to the implementation of IE in Bangladesh, a semi-structured, face-to-face interview protocol was designed. Detailed information regarding the interview protocol, participants, coding, theme extraction, data analysis procedures, translation, reliability and ethical issues related to Phase 1 qualitative data

collection is discussed in Papers 4 and 5 presented in Chapter 6. Appendix 15 presents the interview schedule used in this Phase 1 study.

Phase 2 Study Methodology

A Phase 2 study was conducted, using semi-structured interviews with the IHs to understand their views regarding the conflicting results found in Phase 1. Participants in Phase 2 were IHs who were selected from Primary Teachers' Training Institutes (PTIs), Teachers' Training Colleges (TTCs) and universities, the three types of institutions where the Phase 1 study was conducted. All the IHs of pre-service teacher education institutions who participated in Phase 1 were approached to determine their willingness to participate in a semi-structured interview to discuss the inconsistent findings and the 6 IHs who agreed to participate were, subsequently, interviewed. Paper 3, presented in Chapter 5, provides detailed information regarding the interview protocols, participants, coding, theme extraction, data analysis procedures, translation, reliability and ethical issues related to the Phase 2 qualitative data collection. Appendix 16 presents the interview schedule used in this Phase 2 study.

Ethical Considerations

Ethical issues in social studies include informed consent, confidentiality, originality of the work, demonstration of respect, risk and harm minimisation and voluntary participation (Cohen et al., 2007; Johnson & Christensen, 2008). The study followed a Monash University approved ethical guidelines developed by the Monash University Human Research Ethics Committee (MUHREC). An explanatory statement was provided to the participants covering the research project, data collection procedure and their rights. A permission letter was signed by the head of each teacher education

institution for collecting data from the pre-service teachers. All interviewees also signed a consent form and the identities of all participants were kept anonymous in this report. Appendix 1 to Appendix 8 present the documents in relation to ethical issues of this study such as the human ethics certificate of approval, letters related to explanatory statements, samples of permission letters and consent forms.

CHAPTER 5

Understanding Pre-service Teachers' Attitudes, Perceived Teaching-efficacy and Concerns about Inclusive Education in Bangladesh

Introduction

> "educational beliefs of pre-service teachers play a pivotal role in their acquisition and interpretation of knowledge and subsequent teaching behaviour" (Pajares,1992, p. 328).

The review of past studies presented in previous chapters indicated that pre-service teachers' attitudes, teaching-efficacy and concerns are three important indicators for predicting their preparedness for IE. Further to this, the studies revealed that various demographic variables may impact on pre-service teachers' attitudes, teaching-efficacy and concerns for IE. This chapter presents the findings of the study in the form of two published papers, reporting on Phase 1 and 2 respectively, which investigated the factors appearing to significantly influence pre-service teachers' attitudes, teaching-efficacy and concerns about IE in Bangladesh. The first paper, 'Exploring pre-service teachers' perceived teaching-efficacy, attitudes and concerns about inclusive education in Bangladesh', conveys the results of Phase 1 of the study that used a quantitative approach to measure 1,623 pre-service teachers' attitudes and concerns, as well as their teaching-efficacy, about IE in Bangladesh. Based on a regression analysis, along with a comparison between demographic variables (including age, gender, teaching experience, educational background, length of training, previous training about IE, among others) and the scale items, the magnitude of pre-service teachers' attitudes and efficacy towards IE in Bangladesh are explored.

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Analysis of the findings indicated that three variables, i.e. level of training involved, gender and length of training, showed significantly contrasting results to the previous research in relation to both attitudes and teaching-efficacy scores. What was not clear from this phase of research was why secondary level, pre-service teachers in Bangladesh appear to have more positive attitudes towards IE and higher teaching-efficacy for IE than their primary level counterparts. In addition, Phase 1 study could not explain why Bangladeshi female pre-service teachers were found to have more positive attitudes, but lower teaching-efficacy, towards IE than males. In addition, the Phase1 study could not explain why Bangladeshi pre-service teachers who were in 4-year courses showed lower levels of teaching-efficacy than those who were in a 1-year course.

Paper 3, 'Predicting pre-service teachers' preparedness for inclusive education: Bangladeshi pre-service teachers' attitudes and perceived teaching-efficacy for inclusive education', reports on the outcomes of the Phase 2 study. By conducting semi-structured interviews with 6 administrative heads of the pre-service teacher education institutions in Bangladesh, this phase reported that several socio-demographic characteristics, such as pre-service teachers' age, educational background, curriculum content and Government of Bangladesh IE initiatives, may explain some of the conflicting results found in relation to the effect of length and level of pre-service teacher education programs. Socio-cultural contextual issues related to South Asian male-dominated societies may explain the findings related to gender. Specific recommendations were made in Paper 3 to inform government policy and teacher education programs.

Declaration for Publication

Understanding the relevancy of the subject matter with the aims and scopes of the journal, this paper has been published in an international peer-reviewed, academic journal titled *International Journal of Whole Schooling* published by Whole Schooling Consortium.

Reference:

Ahsan, M. T., Sharma, U., Deppeler, J. (2012). Exploring pre-service teachers' perceived teaching-efficacy, attitudes and concerns about inclusive education in Bangladesh. *International Journal of Whole Schooling, 8* (2), 1-20.

Declaration by candidate

The nature and extent of contributions to the work involved the following:

Name	Nature of contribution	Extent of contribution (%)
M. Tariq Ahsan	Initiation of the concept of the manuscript, development of ideas, prepared the draft manuscript, incorporated other author's comments in final manuscript, prepared and submitted for publication, *First author*	80%
Umesh Sharma	Feedback on study design and draft manuscript, *Co-author*	10%
Joanne M. Deppeler	Feedback on study design and draft manuscript, *Co-author*	10%

Candidate's Signature		Date	05/06/2014

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, VIC 3800, Australia

Signature 1		Date	19/06/14
Signa		Date	19/06/14

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Manuscript 2: Exploring Pre-service Teachers' Perceived Teaching-efficacy,

Attitudes and Concerns about Inclusive Education in Bangladesh

Exploring Pre-Service Teachers' Perceived Teaching-Efficacy, Attitudes and Concerns About Inclusive Education in Bangladesh

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ABSTRACT

This paper reports on pre-service teachers' preparedness for inclusive education in Bangladesh through measuring their perceived teaching-efficacy, concerns and attitudes towards inclusive education and identifying predictor variables that contribute to those three variables. Using two standardized scales with 1,623 pre-service teachers from 16 teachers training institutions, it was found that variables such as length of training, gender, interaction with persons with disabilities, knowledge about local legislation, and level of training involved had significant relationship with participants' perceived teaching-efficacy, attitudes and concerns. In addition, it was also found that pre-service teachers' perceived teaching-efficacy is correlated to their attitudes towards inclusive education. This study also revealed that pre-service teachers having higher perceived teaching-efficacy showed lower level of concerns towards inclusive education. Implications of this study for further improvement of pre-service teacher education program for inclusive education are briefly discussed.

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Introduction

"What people think, believe, and feel affects how they behave" (Bandura, 1986, p. 25).

Inclusion of children from diverse backgrounds (i.e., children with disabilities and children from socially disadvantaged backgrounds) in the mainstream regular education is a global trend in recent days to ensure rights to education for all (UNESCO, 2009). Inclusive Education (IE) is considered as an educational reform that aims to wipe out barriers in the education system by bringing all children into regular education, irrespective of their diversity and backgrounds (UNESCO, 1994). The move towards inclusion is focused on improving school systems for all, more than just including disadvantaged groups in the existing settings (Ainscow, 2005). A strong policy framework is necessary to ensure such school improvement for IE.

Like many other countries (i.e. USA, UK, Australia, India, South Africa), Bangladesh has gone through a number of policy reforms to promote IE. Bangladesh made primary education compulsory for all children by legislating the Compulsory Primary Education Act 1990 (Ministry of Primary and Mass Education [MOPME], 1990). Moreover, Bangladesh enacted the Bangladesh Persons with Disabilities Welfare Act (Ministry of Social Welfare [MSW], 2001) in 2001. The act emphasised the need to educate children with disabilities either in mainstream or special schools. More recently, The Education Policy 2010 recognized IE as a viable strategy to ensure education for all citizens (Ministry of Education [MOE], 2010). More recently, The Education Policy 2010 recognized IE as a viable strategy to ensure education for all citizens (Ministry of Education [MOE], 2010). The overall goals and objectives (Objective Number 10) section of the Pre-primary and Primary Education Section of the National Education Policy 2010 further emphasised, "Equal opportunities have to be ensured for all kinds of disabled and underprivileged children"(MOE, 2010, p. 12).

In order to ensure that these policy and legislative mandates are translated into improved teaching practices at the classroom level, reform in teacher education programs as well as in teaching-learning practices are necessary (Forlin, 2008; 2010). Studies have shown that teachers, who go through a teacher education program that promotes values of IE, are willing to include students from diverse backgrounds and are more likely to create successful inclusive classrooms (Martinez, 2003; Romi&Leyser, 2006). Despite having a broader understanding of IE, it is reported that some teachersfeel uncomfortable in including children with special needs in their programs (Forlin, Loreman, Sharma, & Earle, 2009; Kim, 2011; Shade & Stewart , 2001). Some authors have suggested that the time of pre-service teacher preparation could be the best time to address educators concerns' and make them feel more positive towards IE (Bechham& Rouse, 2011; Shade & Stewart, 2001).

Several studies have found that participation in inclusive or special education courses (Lancaster & Bain 2007, 2010; Oh, Rizzo, So, Chung, Park & Lei, 2010; Sarı, Çeliköz&Seçer, 2008; Woodcock, 2008) or embedding evidence-based practice in the pre-service teacher education program (Bain, Lancaster, Zundans& Parkes, 2009) have a positive impact on pre-service teachers' knowledge and skill development to teach in inclusive classrooms as well as developing high teacher -efficacy and positive attitudes towards inclusive education. Studies (Ben-Yehuda, Leyser& Last, 2010; Forlin, Cedillo and Romero-Contreras, 2010; Romi&Leyser 2006; Sharma, Moore, &Sonawane,2009) have shown that pre-service teachers who participate in training programs about teaching in inclusive classrooms express their readiness by showing high degree of teaching-efficacy and welcoming attitudes towards students with diverse learning needs.

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Self-efficacy, perceived teaching-efficacy of pre-service teachers and inclusive education

Self-efficacy is defined as a person's belief in his or her own competence to execute required behavior successfully to get expected results (Bandura, 1997). If people do not believe in their own abilities in generating a desired effect through their acts, they will not have enough motivation to conduct the act (Bandura, 1997). High self-efficacy is a predictor of increased motivation to achieve goals and feeling more comfortable in coping with unfavorable environments(Bandura, 1997).

Many studies (Lancaster & Bain, 2007; Main & Hammond, 2008; Romi & Leyser, 2006) have considered the term 'self-efficacy' to represent teachers' self-efficacy for teaching. Tschannen-Moran, Woolfolk Hoy, and Hoy (1998) elaborated the concept of self-efficacy in the teaching context and defined teaching efficacy as teachers' beliefs in their own abilities to accomplish specific tasks related to teaching. In this study the term 'perceived teaching-efficacy' is used as we were interested in measuring specific aspects of teaching efficacy in inclusive classrooms.

It is evident that teachers' perceived teaching-efficacy has a relationship with students' academic achievement (Woolfolk, 2007). Changes in the level of teaching-efficacy beliefs are associated with teachers' performance (Woolfolk, 2007). Teachers who have a high level of perceived teaching-efficacy use a range of behavior management techniques (Woolfolk, Rosoff, & Hoy, 1990), do more practical activities and follow effective teaching learning methods (Guskey, 1988). They also take more initiatives in order to meet learning needs of all students and set higher level of goals to be achieved by themselves and their students (Mergler&Tangen, 2010). Moreover, teachers with high teaching-efficacy tend to show behavioral characteristics such as effort taking, decision making, keeping patience in challenging situations and also improving students' motivation, which results in their students' high achievement (Paneque&Barbetta, 2006).

Pre-service teachers' teaching-efficacy beliefs regarding IE have a significant impact on the successful implementation of the values of inclusion (Moeller & Ishii-Jordan, 1996; Paneque&Barbetta, 2006; Sharma, Loreman &Forlin, 2011). Effective teaching in an inclusive classroom depends on teachers' beliefs about disabilities and their responsibilities for children with special needs (Jordan, Schwartz and McGhie-Richmond, 2009).

Pre-service teachers' perceived teaching-efficacy for IE is dependent on a wide range of variables. Romi and Leyser (2006) conducted a study with 1,155 pre-service teachers in Israel. Their study found that pre-service teachers in the third and fourth year had significantly higher level of perceived teaching-efficacy than those in the first and second year of the teacher education program. However, the third and fourth year pre-service teachers were concerned about their lack of skills required in the inclusive classroom.

Pre-service teacher education curriculum content is found to be significantly related to pre-service teachers' perceived teaching-efficacy for IE. Lancaster and Bain (2007; 2010) in studies with Australian pre-service teachers reported that having IE components in pre-service teacher education course was a predictor of high perceived teaching-efficacy. In addition, embedding special education related instructions in the program also enhanced pre-service teachers' perceived teaching-efficacy (Brown, Welsh, Hill, &Cipko, 2008). Romi and Leyser (2006) conducted a study with three groups of Israeli pre-service teachers. They found that the group who completed special education major during its teacher education program showed a significantly higher level of perceived teaching-efficacy than the groups that lacked such experience. .

Gender is also associated with perceived teaching-efficacy of pre-service teachers. Several studies (Erdem&Demirel, 2007; Romi&Leyser, 2006; Woodcock, 2008) have found that female teachers express a higher degree of perceived teaching-efficacy than their male

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counterparts. In a study of Mexican pre-service teachers, Forlin et al. (2010) also found that female pre-service teachers showed higher teaching -efficacy beliefs than their male counterparts.

Researchers have also considered the grade level being taught as a variable that predicted pre-service teachers' perceived teaching-efficacy. Baker (2005) reported that secondary level pre-service teachers had a lower level of perceived teaching-efficacy than primary counterparts. A cross-sectional study (Woodcock, 2011) with 467 Australian pre-service teachers found no significant difference in perceived teaching-efficacy between primary and secondary level pre-service teachers who were at the beginning stage of the course. But the primary level pre-service teachers who were at the end of their teacher preparation programs showed a higher level of perceived teaching efficacy than their secondary counterparts. In particular, a significant difference was found in managing the most difficult students (i.e. children having behavioral issues). Secondary level pre-service teachers in Mexico (Forlin et al., 2010) also possessed the lowest level of teaching-efficacy towards IE than their primary counterparts.

Attitudes and concerns of pre-service teachers towardsinclusive education

Pre-service teachers' attitudes and concerns are found to be major factors that influence the success of inclusion (Carpenter et al., 2005; Martinez, 2003; Sharma et al., 2006). Woolfolk and Hoy (1990) reported that there is a significant link between pre-service teachers' perceived teaching-efficacy beliefs and their attitudes towards children as well as control over the classroom. Studies conducted by Soodak, Podell and Lehman (1998), Weisel and Dror (2006), Kim (2006) and Savolainen, Engelbrecht, Nel and Malinen (2011) concluded that pre-service teachers' perceived teaching-efficacy is a powerful predictor of their attitudes towards IE. These studies found that pre-service teachers' teaching-efficacy and attitudes are positively correlated with each other.

Similar to the factors predicting pre-service teachers' perceived teaching-efficacy, there are several other variables that could affect pre-service teachers' attitudes towards IE. Shippen, Crites, Houchins, Ramsey and Simon (2005) conducted a study with 326 pre-service teachers from three universities in the United States who participated in a reformed teacher education program. Their study revealed that pre-service teachers were more positive and showed less anxiety towards children with disabilities after the completion of the course. Length of pre-service teacher education course as well as number of courses undertaken on disability and inclusion by the pre-service teachers found to be predictors of their attitudes towards IE. Rademacher, Wilhelm and Hildereth, (1998) examined attitudes of 78 pre-service teachers' towards IE in the United States who were enrolled in three different courses that varied in duration from three-week, one-semester to two-semesters. Significantly positive attitudes were found among participants who finished the longest duration program (two-semester course) when compared to those who completed the shorter duration (three-week and one-semester courses) programs.

Previous experience in interaction with children with disabilities is found to be a predictor of positive attitudes towards IE. In a study of 1,155 Israeli pre-service teachers, Romi and Leyser (2006) found that participants who have had enough prior experience with students with disabilities had significantly more positive attitudes than those who did not have any or had less experience. Studies with Australian (Caroll, Forlin&Jobling, 2003) and Mexican (Forlin et al., 2010) pre-service teachers also found that contact with persons with disabilities is a significant predictor of positive attitudes towards IE. Previous educational background also contributes in shaping pre-service teachers' attitudes towards IE. Sharma et al. (2009) conducted a study with 480 pre-service teachers in India, which found that participants with a higher level of previous education had more positive attitudes towards IE

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than those who had lower level of education. Previous education/training on IE also contributed in developing positive depositions among pre-service teachers. For example, positive attitudes were observed in pre-service teachers from Ghana and Botswana who received training in inclusive/special education compared to those who did not receive any such training (Kuyini&Mangope, 2011).

Gender is significantly related to pre-service teachers' attitudes towards IE. A study conducted by Loreman, et al. (2005) revealed that female teachers were less concerned and had more positive attitudes towards IE than their male counterparts. Similar results were also found in an Australian study by Woodcock (2008) with both primary and secondary level pre-service teachers. He found that female teachers had more positive attitudes towards inclusive reforms than the male counterparts. Pre-service teachers in Israel (Romi and Leyser, 2006) and in Ghana and Botswana (Kuyini&Mangope, 2011) also reported that female teachers had more positive attitudes towards IE than males. However, no significant relationship was found between pre-service teachers' gender and attitude towards IE in the study of Carroll et al. (2003) with pre-service teachers in Australia.

Despite having positive attitudes and/or high teaching efficacy, pre-service teachers could have their concerns regarding implementing IE. A study by Sharma and Desai (2002) identified that pre-service teachers' were concerned about inadequacy of resources and lack of peer acceptance towards children from diverse backgrounds. In addition they found that pre-service teachers were concerned that classroom academic standards would decline and they need to do more work in an inclusive classroom. Researchers have also found that pre-service teachers are concerned about including specific disability types in inclusive schools. For example, Cook's (2002) study reported that pre-service teachers in the USA showed more positive attitudes towards including children with learning disabilities, but they were concerned about including those children who had behavior disorder or multiple disabilities. Concerns about availability of financial and professional resources were also echoed in other studies conducted in Chile (Fletcher, Allen, Harkins, Mike, Martinich& Todd, 2010) and Ghana (Agbenyega, 2007). Oswald & Swart (2011) also reported that, based on their study with South African pre-service teachers, the participants showed positive attitudes towards IE and had increased level of knowledge and skills to deal with children with disabilities after participating in an IE related course, but they were more concerned about availability of resources and support services. Hence, from the review of literature it has been found that pre-service teachers' attitudes, teaching-efficacy and concerns about IE are predictors of their preparedness. However, pre-service teachers' demographic variables also have impact on their attitudes, teaching-efficacy and concerns towards IE. In addition to that, it has also been found that the interrelationship among these three variables is important. This information is valuable when planning for adequate preparation of pre-service teachers for IE.

Context of the study

Bangladesh, situated in South Asia, is one of the most densely populated countries in the world (population density 962 persons/sq. km.). Its population is estimated to be 160 million. Bangladesh is struggling to achieve education for all, as well as implementing IE. The current adult literacy rate is at 54% and primary school enrolment rate is at 81% (UNICEF 2010). Despite a number of policy initiatives to ensure education for all, 89% of children with disabilities are left out of education in Bangladesh (DPE & CSID 2002). Of those who attend schools, a large majority frequently dropout within first few months or years. In addition, only 22% children from the indigenous communities completed primary education during 2004 (Sarker& Davey 2009).

In Bangladesh, three types of teacher preparation institutions are present that offer pre-service teacher education programs: Primary Teachers' Training Institutes (PTIs),

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Government Teachers' Training Colleges (TTCs) and Universities. Primary level pre-service teacher education program in Bangladesh titled Certificate in Education (C-in-Ed) is run by the PTIs. At secondary level Teachers' Training Colleges (TTCs) offer one-year B.Ed and some universities offer four-year B.Ed degree. One of the foremost reasons behind not achieving literacy for all citizens in Bangladesh is inadequate preparation of teachers regarding IE (Ahsan & Burnip 2007; Munir& Islam 2005). The primary level teacher preparation curriculum is not yet revised to incorporate issues of IE (Munir & Islam, 2005). It has been identified as very traditional, rote-learning based and segregation-focused (Ahuja& Ibrahim, 2006). To overcome such barriers, IE issues are covered through additional one-day training under the PEDP II program. On the other hand, IE issues are embedded in different the secondary level pre-service teacher education curriculum (TQI-SEP, 2006). This curriculum is being implemented by all Government Teachers' Training Colleges (TTCs) through their one-year B.Ed program. Besides, some universities also offer 4-year B.Ed degree. However, very limited information about educating children with disabilities in general and to include them in mainstream classrooms is covered in the B.Ed program. Bangladesh developed a working definition of inclusive education through a consultative workshop in 2001, which was organized by the UNESCO-Dhaka with different stakeholders that defines IE as:

> 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).

In order to explore the effectiveness of how the IE definition is translated into classrooms in Bangladesh, it is important to examine how well pre-service teachers are being prepared for inclusive classrooms through these existing teacher education programs. One way to determine the preparedness of pre-service teachers to teach in the inclusive classroom is to measure their perceived teaching-efficacy beliefs, their attitudes and their level of concerns about IE. Identification of factors that shape pre-service teachers' perceived teaching efficacy beliefs, attitudes and concerns would provide additional information that would be helpful for policy and curriculum reform initiatives for IE. This paper reports demographic differences in pre-service teachers' perceived teaching-efficacy, attitudes and concerns towards IE in Bangladesh.

This study recruited the final year/term pre-service teachers as participants. One reason of choosing this group was for predicting their preparedness just before they are entering into the real world of teaching. This paper aims to answer the following research questions:

- What is the level of perceived teaching-efficacy, attitudes and concerns of pre-service teachers regarding teaching in inclusive schools of Bangladesh?
- Is there any significant relationship between pre-service teachers' perceived teaching-efficacy, attitudes and concerns towards IE and the following variables:
    - a. age;
    - b. gender;
    - c. educational qualification;
    - d. teaching experience;
    - e. length of the pre-service teacher education course;
    - f. level of training involved (primary/secondary);
    - g. experience of teaching children with disabilities; and

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h. contact with persons with disabilities?
• Is there any significant relationship in pre-service teachers' perceived teaching-efficacy, attitudes and concerns towards IE?

Methodology

Participants

Participants this study were 1,623 final year/term pre-service teachers from primary (n=890, 54.8%) and secondary (n=733, 45.2%) level pre-service teacher education institutions in Bangladesh. Among the participants, 38.9% (n=631) were male and 61.1% (n=992) were female. Among 890 primary level pre-service teachers, the majority (n=638, 71.7%) were females. Whereas, among the secondary level pre-service teachers the number of male teachers (n=379, 51.7%) was slightly higher than the female (n=354, 48.3%) counterparts. Age range varied from 19 to 54 years. Of the participants, the majority 88% (n=1429) were enrolled in one-year and the rest 12% (n=194) were in the four-year long program. Regarding previous teaching experience, 11% (n=185) had 'no', 39.7% (n=645) had 'less than one-year', 12% (n=194) had '1-2 years', 11.8% (n=191) had 3-4 years, 3.6% (n=59) had 5 years teaching experience and 21.5% (n=349) had 'more than 5 years' experience. There is a reason behind such experience issue of pre-service teachers. In Bangladesh it is not mandatory for private schools to recruit teachers having pre-service teacher education degree. But, when they are recruited by the Government schools, they have to finish the pre-service teacher education as soon as possible. Among participants, [> 40 hours], 50.4% had significant interaction with people with disabilities. A majority (94.9%) did not have any experiencein teaching children with disabilities. A notable number (33.8%, n=548) did 'not have any perceived knowledge of local legislations related to disability, another major part (36.8%, n=598) had 'poor knowledge', 26.8% (n=435) had 'average knowledge', a small number (2.6%, n=42) had 'good' and 'very good' knowledge. Regarding confidence in teaching a student with disability only 5.7% (n=93) had 'very high' and 15.2% (n=246) had 'high' level of confidence. A majority 60.6% (n=984) had average confidence. Whereas, 10.4% (n=169) had 'low' and 8.1% (n=131) had 'very low' confidence level.

Selection procedure

Bangladesh is divided into sixgeographical locations (Dhaka, Chittagong, Rajshahi, Sylhet, Barisal and Khulna). To get representation of all six divisions, the Director General (DG) of the Directorate of Primary Education (DPE) was requested to select six PTIs that are situated in six divisionsout of 55 PTIs all over Bangladesh. All the pre-service teachers enrolled in the final term/year/semester in those six PTIs were invited to participate in the studyand on the basis of voluntary participation the responses were taken. A three-part survey questionnaire was administered to the participants. The questionnaires were distributed in the class by the institution lecturer and the completed questionnaires were collected by the first author in each of the institutions (see Table 1).

Similarly,the DG of the Directorate of Secondary and Higher Education (DSHE) was requested to select six TTCs out of fourteen government TTCs following the same criteria that all six geographical divisions would be covered.A similar procedure as described above was used to collect data from these institutions.

In Bangladesh, two public and two private institutions offer 4-year B.Ed degree. Information about these institutions was collected from the University Grants Commission (UGC) web page. All four institutions were approached for the study and data was collected as described above (see Table 1).

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Table 1

Participants of the Study

Level of Pre-service Teacher Education Programs	Type of Institutions	Number of Institutions	Number of Participants
Primary	Primary Teachers' Training Institutes (PTIs)	6	890
Secondary	Teachers' Training Colleges	6	539
	Universities that offer 4-year training	4 (2 public and 2 private)	194

Instruments

Part 1: Questionnaire on demographic information. A series of questions were asked to get pre-service teachers' demographic information such as age, gender, educational qualification, previous teaching experience, presence and type of a disability, experience in teaching children with special needs, experience in dealing persons with disabilities, teaching experience on children with disability, having inclusive/special education related components in the course, length of training, level of training involved, knowledge about local education policies and legislations, previous training on educating students with disabilities, confidence level and in teaching in inclusive settings.

Part 2: Teacher Efficacy for Inclusive Practice (TEIP) scale. For this research the Teacher Efficacy for Inclusive Practice (TEIP) scale (Sharma, Loreman and Forlin, 2011) was used to measure pre-service teachers' beliefs on their own abilities towards inclusive practices, in other words, their perceived teaching-efficacy for IE. The TEIP scale consists of 18 items (e.g. I am able to provide an alternative explanations or example when students are confused) that measure three different aspects of perceived teaching-efficacy for IE. These items are distributed across three subscales that measure Efficacy to use inclusive instructions, Efficacy in collaboration and Efficacy in managing behavior. This scale uses a six-point Likert scale of Strongly Disagree (1) to Strongly Agree (6). The TEIP scale yields a total-score, the value of, which can range from 18 to 108. Higher scores indicate high magnitude of perceived teaching-efficacy of pre-service teachers for IE. The reliability for the total scale was 0.89 and alpha coefficients for Factors 1, 2 and 3 are 0.93, 0.85 and 0.85 respectively. In this study the Cronbach's alpha for the TEIP scale was 0.85.

Part 3: Sentiments, Attitudes, Concerns regarding Inclusive Education (SACIE) scale. For this study the Sentiments, Attitudes, Concerns regarding Inclusive Education (SACIE) scale (Loreman, Earle, Sharma and Forlin, 2007) was used with pre-service teachers. SACIE scale measures three factors that all together indicate the attitudes of pre-service teachers towards IE. These three factors are sentiments, concerns and attitudes towards IE.SACIE scale has 15 items (e.g. I am concerned that my workload will increase if I have students with disabilities in my class) and measures the three factors by using a 4-point Likert scale with the response anchors of Strongly Agree, Agree, Disagree and Strongly Disagree. The SACIE scale yields a Total-score, the value of, which can range from 15 to 60. Cronbach's alpha for those three sub-scales are 0.68, 0.94 and 0.88 respectively.

This study only used the Concerns and Attitudes subscales as the reliability alpha of the sentiment subscale for this study was low. In this study the Cronbach's alpha for the

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attitudes and concern sub-scale were 0.63 and 0.60 accordingly. The items of the concern subscale were reverse coded so that a high score indicates positive attitudes towards IE.

Three-part survey questionnaire was translated in Bangla language by using the conceptual translation procedures (Sperber, 2004). This procedure involved two independent translators for translation and the first author of this manuscript performed the third translator's role to summarize the translations. The study followed a university approved ethical guidelines. A consent form was signed by the head of the teacher education institution on behalf of the pre-service teachers. Identities were kept anonymous.

Results

Pre-service teachers' perceived-teaching-efficacy for IE

The overall mean score of the perceived teaching-efficacy of the pre-service teachers on the TEIP scale was 4.84 (SD=0.52). A score close to value 5 on the TEIP scale refers to participants "Agree" with the statements that measure their perceived teaching-efficacy towards IE. Thus, pre-service teachers in this study had relatively high level of perceived teaching-efficacy towards IE. Scores of the pre-service teachers in three factors of the TEIP were also analysed. It was revealed that pre-service teachers had highest score (M=5.10, SD=0.58) in Efficacy in managing behavior factors, followed by (M=4.80, SD=0.59) Efficacy to use inclusive instructions. Among three factors, the lowest level of teaching-efficacy (M=4.59, SD=0.75) was found in Efficacy in collaboration factor. A multiple regression analysis has also been conducted to investigate the main effect of the scale on teaching-efficacy of pre-service teachers as well as impact of any predictors in comparison to all other demographic variables on the independent variable 'Perceived teaching-efficacy'. Demographic variables include age, gender, educational qualification, previous teaching experience, presence and type of a disability, experience in teaching children with special needs, experience in dealing persons with disabilities, teaching experience on children with disability, having inclusive/special education related components in the course, length of training, level of training involved, knowledge about local education policies and legislations, previous training on educating students with disabilities, confidence level and in teaching in inclusive settings. Variables were identified through this statistical procedure and their effects were discussed in another section of this article later on and presented in Table 2.

Pre-service teachers' attitudes towards IE

The overall mean score of the attitude subscale was 2.81 (SD=0.54). A score close to value 3 on the attitudes subscale refers to participants "Agree" with the statements that indicate their attitudes about IE. Therefore, pre-service teachers in this study have moderately positive attitudes towards IE. Attitude mean item scores suggested items indicate that pre-service teachers had most positive attitudes towards inclusion of students having problems in verbal expression (M=2.98, SD=0.78) and attention problems (M=2.98, SD=0.82) followed by those students who fail (M=2.90, SD=0.84) in exams. They were less favourable towards including students who need individualized academic programs (M=2.65, SD=0.90) and the least favourable to inclusion of students who require communicative technology (Braille/sign language) support (M=2.52, SD=0.90).Same as perceived teaching-efficacy, a multiple regression analysis was applied to determine the main effect of the scale as well as identifying predictor demographic variables on the independent variable 'Attitudes'. The findings of this analysis has been discussed in another section of this article later on and presented in Table 2.

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Pre-service teachers' concerns about IE

The overall mean score of the concern subscale was 2.67 (SD=0.52). A score more than the value of 2.5 on the concern subscale refers to that participants somewhat 'Agree' with the statements that indicate their concerns about IE. Therefore, pre-service teachers in this study have low level of concerns towards IE. Analysis of 5 items in the concern subscale indicates that pre-service teachers are most concerned to provide appropriate attention to all students (M=2.34, SD=0.85) and concerned about lack of knowledge and skills (M=2.47, SD=0.92) followed by concerns about increased workload (M=2.61, SD=0.90). Pre-service teachers were less concerned about their stress level (M=2.90, SD=0.82) and least concerned about peer acceptance (M=2.99, SD=0.72).Same as perceived teaching-efficacy and attitudes, a multiple regression analysis was applied to determine the main effect of the scale as well as identifying predictor demographic variables on the independent variable 'Concerns'. The findings of this analysis has been discussed in another section of this article later on and presented in Table 2.

Impact of demographic variables on perceived teaching-efficacy, attitudes and concerns

This section presents only the impact of those variables that were entered into the regression equation and found to be significantly correlated with three independent variables (perceived teaching-efficacy, attitudes and concerns).

Determinants of perceived teaching-efficacy scores. Considering the sample-size, number of dependent and independent variables, the Enter method of Multiple Regression analysis (Morgan, Leech, Gloeckner& Barrett, 2007) was employed to determine which demographic variables contributed in predicting the dependent variable of perceived teaching-efficacy. A significant model emerged ($F_{14, 1608}$=16.859, p < 0.0005) for the TEIP scale. Adjusted R square of the full model was 0.120 (Standard Error-SE=.494), which indicates that the model explained 12% of the variance in the pre-service teachers perceived teaching-efficacy. However the effect size was small (Cohen, 1988), suggesting that there could be many other variables that were not examined in this study which could further explain the variance in participants' mean efficacy scores. Six variables were found to be the significant predictors of perceived teaching-efficacy out of all the demographic variables (See Table 2).

Length of training (β=-.158, SE=.028) made the strongest contribution among the significant variables in predicting pre-service teachers' perceived teaching–efficacy for IE. In contrast to majority of the past research, a negative correlation was found which suggested that pre-service teachers in four-year long course (M=4.65, SD=.59) had less perceived teaching-efficacy than the pre-service teachers in one-year long course (M=4.86, SD=.51). The regression model also identified the knowledge of local legislation on disability (β=.131, SE=.016) as the next powerful significant predictor variable. A very clear trend of increasing mean scores of perceived-teaching efficacy were observed among the pre-service teachers having 'nil' knowledge (M=4.72, SD=.56) to 'poor' (M=4.82, SD=.50), 'average' (M=4.95, SD=.46), 'good' (M=5.19, SD=.46) and 'very good' (M=5.47, SD=.46) knowledge (See Table 2). Confidence in teaching a student with disability (β=.128, SE=.015) was found as another significant predictor of perceived teaching-efficacy. A very clear trend of increasing mean scores of perceived-teaching efficacy were observed among the pre-service teachers having 'Very low' confidence level (M=4.62, SD=.63) to 'low' (M=4.67, SD=.51), 'average' (M=4.84, SD=.49), 'high' (M=4.94, SD=.51) and 'very high' (M=5.07, SD=.52) level of confidence.

Having significant interaction in dealing with a person with disability was another predictor (β=.118, SE=.027) of perceived teaching-efficacy amongst all six variables. Those participants who had indicated having interacted with people with disabilities were found to have higher perceived teaching-efficacy (M=4.93, SD=.48) than who did not have any such

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interaction (M=4.73, SD=.54). Level of training involved (β=.063, SE=.033) was also found as a significant predictor variable in the model. Secondary level pre-service teachers (M=4.88, SD=.53) were found to have higher perceived teaching-efficacy than primary level pre-service teachers (M=4.79, SD=.51). Gender (β=-.053, SE=.029) was the weakest amongst all six predictor variables. Male pre-service teachers (M=4.90, SD=.54) had higher level of perceived teaching-efficacy than female counterparts (M=4.79, SD=.51).

Determinants of attitude scores. A significant model emerged ($F_{14, 1608}$=2.463, p < 0.0005) for the dependent variable 'attitudes'. Adjusted R square of the full model was 0.012 (SE=.540), which was rather low (Cohen, 1988). Only two variables were found to be the predictors of attitudes (See Table 2).

Level of training involved (β=.089, SE=.036) made the strongest contribution among the significant variables in predicting pre-service teachers' attitudes towards IE. Secondary level pre-service teachers (M=2.86, SD=.56) had more positive attitudes towards IE than primary level pre-service teachers (M=2.77, SD=.51). Gender (β=.056, SE=.031) was the other significant predictor variable of attitudes. Female (M=2.82, SD=.53) pre-service teachers had more positive attitudes towards IE than male (M=2.79, SD=.55) pre-service teachers (See Table 2).

Determinants of concern scores. A significant model emerged ($F_{14, 1608}$=9.025, p< 0.0005) in regression analysis for 'concerns'. Adjusted R square of the full model was .065 (SE=.510), which indicated a small effect (Cohen, 1988). Five variables were found to be significant predictors of participants' concerns (See Table 2).

Confidence in teaching students with a disability (β=.128, SE=.015) made the strongest contribution among the significant variables in predicting pre-service teachers' concerns about IE. A very clear trend of decrease of concerns were observed among the pre-service teachers having 'low' (M=2.42, SD=.49) to 'average' (M=2.68, SD=.50), 'high' (M=2.77, SD=.51) and 'very high' (M=2.85, SD=.59) level of confidence. Interestingly, pre-service teacherhaving 'Very low' confidence were found to have less concerns (M=2.52, SD=.57) than those who were in 'low' (M=2.42, SD=.49) confidence level. Age (β=.079, SE=.004) was the next predictor among the significant variables followed by experience in teaching a student with disability (β=.078, SE=.029) that contributed significantly to the variance of pre-service teachers' concerns about IE. Pre-service teachers aged above 30 years were slightly less concerned (M=2.82, SD=.55) those who were in the age-group of 30 years and less (M=2.80, SD=.54). Findings also indicate that the concern level towards IE decreased as the experience level increased from 'nil' (M=2.61, SD=.52) to 'some' (M=2.78, SD=.51). However, concerns increased for those who had high level (M=2.74, SD=.49) of teaching experience in comparison to those who had some experience. But both groups who had some and high level of experience in teaching a student with disability were less concerned than those who had no experience (See Table 2). Significant interaction in dealings with a person with disability (β=.073, SE=.028) was another predictor variable for concerns. Finding reveals that pre-service teachers having 'significant interaction' with persons with disability (M=2.75, SD=.53) were less concerned than those who did 'not have any interaction' (M=2.58, SD=.51). Level of training involved (β=.068, SE=.034) was found to be the least powerful significant predictor of concerns in the model. Secondary level pre-service teachers (M=2.74, SD=.52) were found to be less concerned than primary level pre-service teachers (M=2.60, SD=.51).

Relationships among perceived teaching-efficacy, attitude and concern scores

In order to explore the relationships between two continuous variables (i.e. teaching-efficacy & attitudes/teaching efficacy and concerns/attitudes and concerns) the Pearson Product-Moment correlations (Morgan, Leech, Gloeckner& Barrett, 2007) were calculated to determine the relationship among the scores of pre-service teachers' perceived teaching-

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efficacy, attitudes and concerns. A significant positive correlation was also found (r=.196, p= 0.01) between pre-service teachers' perceived teaching-efficacy and attitude scores. Positive correlation between perceived teaching-efficacy and attitudes indicates that pre-service teachers having high perceived teaching-efficacy show the evidence of positive attitudes towards IE. However, the relationship between two variables was not strong.

A significant positive correlation was found (r=0.24, p=0.01) between pre-service teachers' perceived teaching-efficacy and concern scores. As the concern scores were reverse coded, the strong positive correlation between perceived teaching-efficacy and concern indicates that pre-service teachers with high level of perceived teaching-efficacy show the evidence of lower level of concerns.

Table 2

Summary of Multiple Regressions for significant variables predicting perceived teaching-efficacy, concerns and attitudes towards inclusive education

Dependent Variable	Predictor Variables	Standardized Coefficient Beta	Standard Error	t value	Sig.
Perceived Teaching-efficacy for Inclusive education*	Level of training involved	.063	.033	2.050	.041
	Length of training	-.158	.028	-4.593	.000
	Gender	-.053	.029	-1.979	.048
	Significant interaction in dealings with a person with disability	.118	.027	4.611	.000
	Knowledge of the local legislation	.131	.016	4.975	.000
	Confidence in teaching a student with disability	.128	.015	5.078	.000
Attitudes towards Inclusive education**	Level of training involved	.089	.036	2.730	.006
	Gender	.056	.031	1.986	.047
Concerns about Inclusive education***	Level of training involved	.068	.034	2.136	033
	Age	.079	.004	2.068	.039
	Significant interaction in dealings with a person with disability	.073	.028	2.767	.006
	Confidence in teaching a student with disability	.130	.015	5.029	.000
	Experience teaching a student with disability	.078	.029	2.493	.013

*Perceived Teaching-efficacy model ($F_{14, 1608}$ = 16.859, p < 0.0005; Adjusted R square=.120, standard error=.494)

** Attitude model ($F_{14, 1608}$ = 2.463, p < 0.0005; Adjusted R square= .012, standard error = .540)

*** Concern model ($F_{14, 1608}$ = 9.025, p < 0.0005; Adjusted R square = .065, standard error= .510)

Discussion and conclusion

The purpose of the study was to examine pre-service teachers' perceived teaching-efficacy, attitudes towards and concerns about IE. Findings of this study have some important

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policy and practical implications. This section discussed the findings in relation to participants' level of perceived teaching-efficacy, attitudes and concerns of pre-service teachers of Bangladesh towards IE, effect of demographic variables on those dependent variables and relationships among teaching-efficacy, attitudes and concern scores.

Analyzing the mean scores of three scales, pre-service teachers in Bangladesh who participated in this study found to have high level of perceived teaching-efficacy, are not very concerned and have moderately positive attitudes towards IE. Pre-service teachers had more perceived teaching-efficacy about managing behavior in inclusive classrooms, which has often been identified as a challenge by pre-service teachers in other studies (Main & Hammond, 2008; Mergler&Tangen, 2010). They had high level of perceived teaching-efficacy in using inclusive instructions and the lowest level of perceived teaching-efficacy in collaborating with others among all three factors.

Analysis of data shows that pre-service teachers who had a high level of perceived teaching-efficacy, showed less concern and positive attitudes towards IE. This finding supports the conclusion of other studies conducted by Sharma et al. (2006) and Loreman et al. (2005) which reported that as the pre-service teachers become more positive towards inclusion, their concerns decline. Studies conducted by Weisel and Dror (2006) and Kim (2006) also found that perceived teaching-efficacy was the single most important factor that affected attitudes towards inclusion. In addition, Savolainen's et al. (2011) study with Finnish and South African teachers using the same scales as used in this study reported that in both countries perceived teaching-efficacy, attitudes and concerns scores were correlated with each other. Such consistency in the findings of the current and other studies supports a strong policy recommendation that suggests that concerns of pre-service teachers about IE can be identified when they are attending pre-service teacher education course and attempts could be made to minimizing concerns, which probably could contribute to increase pre-service teachers' perceived teaching-efficacy and positive attitudes towards IE.

What is surprising is that pre-service teachers at the secondary level had a higher level of perceived teaching-efficacy, less concerns and more positive attitudes towards IE than their primary level counterparts. These findings are in sharp contrast to the existing studies (Baker, 2005; Forlin et al., 2010; Woodcock, 2011) on similar variables where primary level pre-service teachers were more positive. This finding could be explained to some extent by the nature of curriculums in the primary and secondary programs. Primary level pre-service teacher education curriculum is not revised yet to address the values of IE, whereas, secondary level curriculum was revised in 2006. However, further in-depth study may probably reveal the exact reason behind such contradiction situation in Bangladesh than other country practices.

Pre-service teachers expressed that they were less concerned about peer acceptance towards children with disabilities and about their stress levels. They were 'more' concerned about their increased workload and 'most' concerned about providing appropriate attention to all children in a diverse classroom followed. These findings were validated by other studies (Sharma & Desai, 2002; Sharma, Forlin& Loreman, 2007). In relation to their attitude mean scores in regard to specific items, pre-service teachers showed positive attitudes in including children who had special needs in verbal expression, providing attention to children who failed in examinations. But they were less favorable in including children who require individualized academic programs and support of communicative technologies, such as Braille and Sign Language. These results are similar to those reported by researchers in the USA (Gao, 2011), Mexico (Forlin et al., 2010) and in Ghana (Agbenyega, 2007). They also found that pre-service teachers are less favorable and more concerned about including children with disabilities who have sensory and behavioral challenges.

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Several other demographic variables (see Table 2) were found to have a significant impact on pre-service teachers' perceived teaching-efficacy, attitudes and concerns towards IE. For example, length of training was found to be related significantly to higher perceived teaching-efficacy scores. Pre-service teachers in one year long course had higher level of perceived teaching-efficacy than those in four years long course. This finding contradicts, at least in Bangladesh context, the popularly held belief that a longer length of training is better than a shorter training (Carroll et al., 2003; Rademacher et al., 1998; Theaker, 2008). One possible explanation could be that participants in one-year programs are receiving more attention from the government in relation to resource support, teacher educator development and curriculum reform areas than those enrolled in four-year university-based programs.

This study highlights a need to re-examine the curriculum of different teacher education programs in Bangladesh. Considering that some exposure to issues of inclusive education can make pre-service teachers feel more efficacious, less concerned and more willing to teach in inclusive classrooms, it is important that all teacher education programs in Bangladesh cover key aspects of inclusive education. While reforming the pre-service teacher education curriculum to address IE issues, it is vital to consider what should be covered in the revised teacher education program so that the curriculum is not overcrowded, but at the same time deepens understanding of individual differences while addressing student diversity within the Bangladesh context.In this regard, it is important that the new curriculum should build upon what is known to work in Bangladesh context rather than just on what has worked in other countries, particularly in the countries of West (Sharma, 2011). The revised curriculum should also attempt to make sure that the graduates coming out of the program not only have skills and knowledge (head), beliefs and commitment (heart) but also have sufficient experience in teaching (hands) the diverse student population (Sharma, 2011; Shulman,, 2004). This argument is supported by Hemmings& Woodcock (2011)'s study with Australian pre-service teachers which reported that pre-service teachers showed evidence of improvement through participating in IE courses. But they felt less confident in teaching in inclusive classrooms due to poor exposure to real inclusive settings. Two recent studies (Ahsan, Sharma &Deppeler, 2011, 2012) conducted in Bangladesh based on data collected from interviews of heads of higher education institution that are providing pre-service teacher education also revealed that the existing curriculums need substantial revision in regard to IE. Therefore, this study also recommended revising the existing curriculum to better address such concerns.

Female pre-service teachers had more positive attitudes towards IE than males. This finding is consistent with other research studies (Loreman et al., 2005; Romi&Leyser, 2006; Woodcock, 2008). A meta-analysis conducted by Avramidis and Norwich (2002) also found females to be more affirmative and tolerant towards inclusion than their male colleagues. However, another interesting finding of this study is that females had lower level of perceived teaching-efficacy than the males. However, it remains unknown why female pre-service teachers in Bangladesh hold more positive attitudes but less perceived teaching-efficacy for IE. Significant interaction with people with disabilities was a strong predictor of high level of perceived teaching-efficacy and indicating lower degree of concerns. However, this variable was not significant in predicting attitudes towards IE in this study. Some studies (Avramidis& Norwich, 2002; Subban and Sharma, 2006) found it as a strong predictor of positive attitudes. Experience in teaching students with disability contributed significantly in minimizing concerns of pre-service teachers about IE. As the level of experience increased, the level of concerns decreased. Only 4.1 percent pre-service teachers had a "high" level of experience in teaching students with disabilities, 29.9 percent had "some" and a majority 66 percent did not have any experience at all. Other studies (Forlin et al., 2009; Oh et al., 2010; Sharma et al.,

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2007) also supported that teachers having previous experience/contact or teaching experience with children with special needs had positive attitudes and less concerns towards IE.

Knowledge of local legislations related to disability and IE (e.g., The Bangladesh Persons with Disabilities Welfare Act, 2001) was also a significant predictor of perceived teaching-efficacy of pre-service teachers, though it was not significant for other two dependent variables. This study reveals that as the knowledge level increased, pre-service teachers showed more perceived teaching-efficacy towards IE. Importance of the positive impact of knowledge is mentioned in other study as well, such as; Sharma et al. (2007)'s study found that pre-service teachers were less concerned as they know more about local legislations. Another study in the United States (Brown, Welsh, Hill &Cipko, 2008) found that pre-service teachers' knowledge about inclusion terminology increased their confidence level. This finding supports, therefore, that information of local legislation and policies should be incorporated in the pre-service teacher education curriculum.

One limitation of the study could be identified. Data collected in this study from pre-service teachers could be considered as a snapshot (final semester/year) in their preparation to teach in inclusive classrooms. Perceived teaching-efficacy is a construct that predicts beliefs about teachers' future actions. We did not collect any data about the actual behavior of the participants in real classrooms; neither data was collected from the actual training experiences of the participants. Therefore, participants' self report may not be true reflection of what they would actually do when they are asked to teach in inclusive classrooms. The study might be more informative if practices of these participants could be observed when they entered into regular schools after completion of their degrees. Future studies could be designed in a way to see the longitudinal effect of teacher preparedness for IE in different stages of pre-service teachers' development. Besides, the models emerged through the regression analysis in this study had small-effect (Cohen, 1988) to the model fit (12%, 1.2% and 6.5%). However, it could happen when a model has a restricted range of the independent variables (Norušis, 2005). Nonetheless, significant explainable variables can be obtained through this small-effect model fit as well (Colton & Bower, 2002).

Findings of this study have several implications both internationally and in Bangladesh context. This study also validated other international data that higher perceived teaching-efficacy is correlated with positive attitudes and fewer concerns of pre-service teachers about IE. Besides, this study indicates that what is taught in the pre-service teacher education program is more important than increasing the length of the program. Regarding primary and secondary level pre-service teacher preparedness, this study contradicts with global findings and raise to address more context-based issues related to teacher preparation for IE. Contrasting findings related to gender claim in-depth study focusing gender, equity and pre-service teacher education for IE in developing countries like Bangladesh. This study also validated the importance of including knowledge of local legislations; experience and prior training on children with disability also contribute to better teacher preparation for inclusive classrooms. These findings indicated some teacher education curriculum reforms ideas for Bangladesh. Practical implication of the findings of this study would hopefully be able to create teachers with higher confidence level and positive attitudes who would be able to ensure education for all children through inclusive education.

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Declaration for Publication

Recognising the relevancy between the subject matter of the manuscript and the aims and scopes of the journal, this paper has been published in a prestigious high-impact international peer-reviewed, academic journal titled *Cambridge Journal of Education*.

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Reference:

Ahsan, M. T., Deppeler, J., & Sharma, U. (2013). Predicting pre-service teachers' preparedness for inclusive education: Bangladeshi pre-service teachers' attitudes and perceived teaching-efficacy for inclusive education. *Cambridge Journal of Education, 43* (4), 517-535. doi:10.1080/0305764X.2013.834036

Declaration by candidate

The nature and extent of contributions to the work involved the following:

Name	Nature of contribution	Extent of contribution (%)
M. Tariq Ahsan	Initiation of the concept of the manuscript, development of ideas, prepared the draft manuscript, incorporated other author's comments in final manuscript, prepared and submitted for publication, *First author*	80%
Joanne M. Deppeler	Feedback on study design and draft manuscript, *Co-author*	10%
Umesh Sharma	Feedback on study design and draft manuscript, *Co-author*	10%

Candidate's Signature	███████████	**Date**	05/06/2014

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, VIC 3800, Australia

Signa▮▮▮▮	Date	20/06/14
Signa▮▮▮▮	Date	19/06/14

Manuscript 3: Predicting Pre-service Teachers' Preparedness for Inclusive Education: Bangladeshi Pre-service Teachers' Attitudes and Perceived Teaching-efficacy for Inclusive Education

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Predicting pre-service teachers' preparedness for inclusive education: Bangladeshi pre-service teachers' attitudes and perceived teaching-efficacy for inclusive education

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This study reports on the second phase of a larger study, which investigated the preparedness of pre-service teachers to teach in inclusive classrooms in Bangladesh. Phase 1 employed two standardised scales that were used with 1623 pre-service teachers from 16 teacher education institutions to measure their attitudes and perceived teaching-efficacy for inclusive education. The findings of Phase 1 indicated that the level and length of training, along with gender, influenced both teacher attitudes and teaching-efficacy. In Phase 2, semi-structured interviews with six administrative heads of the pre-service teacher education institutions were conducted in order to better understand these findings. Outcomes of Phase 2 indicated that curriculum, teacher-related and a number of contextual variables may explain the differences in the findings of this study that were in sharp contrast to those from previous international research. Recommendations for policy and curriculum reform for pre-service teacher education are also made.

Keywords: pre-service teacher education; attitudes; perceived teaching-efficacy; inclusive education; Bangladesh

Introduction

Since the Salamanca Declaration (UNESCO, 1994), a number of international initiatives such as the Dakar Framework (UNESCO, 2000), Millennium Development Goals (United Nations, 2008), and the UN Convention on the Rights of Persons with Disabilities (UN Enable, 2008), have reiterated the need for Inclusive Education (IE) reform in an effort to ensure 'education for all'. The UNESCO (2009) policy guidelines describe IE as a 'process aimed to offering quality education for all while respecting diversity and the different needs and abilities, characteristics and learning expectations of the students and communities, eliminating all forms of discrimination' (p. 18).

How IE is enacted in schools depends upon a number of factors. Several researchers (Bechham & Rouse, 2011; Dart, 2006; Forlin, 2008, 2010; Lambe & Bones, 2006; Shade & Stewart, 2001) have identified the content and qualify of teacher preparation during pre-service teacher education as an important factor in the success of IE. During pre-service education, teachers may or may not acquire knowledge and experience relevant for teaching in inclusive classrooms. Researchers (Florian & Linklater, 2010; Golder, Norwich, & Bayliss, 2005; Pearson, 2007) have

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argued that well-designed pre-service teacher education programs positively impact upon the uncertainties felt by pre-service teachers regarding IE. Pre-service teachers who engage with appropriate pedagogy for IE demonstrate their preparedness by: displaying welcoming attitudes and high levels of teaching-efficacy for a diversity of students (Ben-Yehuda, Leyser, & Last, 2010; Forlin, Cedillo, Romero-Contreras, Fletcher, & Hernández, 2010; Romi & Leyser, 2006; Sharma, Moore, & Sonawane, 2009) and use teaching approaches that address individual learning needs of students (Florian & Rouse, 2009). Researchers have suggested that well-prepared pre-service teachers are better able to face resistance to IE. For example, Bechham and Rouse (2011) reported that pre-service teachers often experience anti-inclusion views from teachers during their practicum placements. When teacher education programs were based on democratic principles of equity and consistent with IE, they were highly motivated to teach and establish inclusive practices despite the challenges and difficult circumstances associated with negative views and resistance to IE. Thus, teachers' preparedness during pre-service teacher education programs can be considered an indicator of their future success in inclusive classrooms. Teacher education reform for IE needs to move beyond embedding special education courses into the existing programs and provide pedagogy that supports teachers to be confident and to provide high-quality teaching that meets the learning needs of 'all' children (Slee, 2010).

Attitudes of pre-service teachers towards inclusive education

Teacher attitudes are important factors that could influence the success of inclusion (Martinez, 2003; Sharma, Forlin, Loreman, & Earle, 2006). While positive attitudes towards implementing inclusive practices in schools could positively influence practices of educators, their negative attitudes are often reflected in covert and overt rejection of learners with disabilities (Avramidis & Norwich, 2002). There is some research (Kagan, 1992; Pajares, 1992; Richardson, 1996) suggesting that beliefs and attitudes formed at the time of teacher education programs are difficult, if not, impossible to change. Hence, attempts should be made to ensure that when pre-service teachers finish their teacher education program they are willing to teach in inclusive classrooms.

A number of researchers have made attempts to explore relationships between different variables (e.g. gender, course length, previous teaching experience) and pre-service teachers' attitudes towards IE. Rademacher, Wilhelm, Hildereth, Bridges, and Cowart (1998) examined attitudes of pre-service teachers towards IE in the United States, focusing on the influence of length of the pre-service teacher education course as well as the number of courses undertaken on disability and inclusion. The pre-service teachers were enrolled in three different courses that varied in length from three weeks, one semester, to two semesters (full-year). They found significantly positive attitudes amongst the participants who completed two-semester courses when compared to the participants on shorter courses. However, Tait and Purdie (2000) found that the length of the course did not have any significant relationship with the attitude of Australian pre-service teachers. The participants in this study were undertaking four-year undergraduate and one-year postgraduate diploma courses. They suggested further in-depth research be undertaken to explore the impact of this variable on educators' attitudes.

It has been well documented that female pre-service teachers are more positive towards inclusive education than their male counterparts. For example, a study was conducted by Forlin et al. (2009) to compare pre-service teachers attitudes towards inclusive education in four countries: Australia, Canada, Hong Kong, and Singapore. Their study found that in all four countries female pre-service teachers showed more positive attitudes towards inclusive education than their male counterparts. This finding was supported by Australian (Woodcock, 2008) and Israeli (Romi & Leyser, 2006) studies as well. Similarly, many other studies (Kuyini & Mangope, 2011; Loreman, Sharma, Forlin, & Earle, 2005; Tait & Purdie, 2000) also reported that female pre-service teachers had more positive attitudes towards inclusive education than their male counterparts. However, Carroll, Forlin, and Jobling (2003), Haq and Mundia (2012), and Rana (2012) found no significant relationship between participants' gender and their attitudes towards IE.

Several researchers reported that pre-service teachers who have received training in IE (Loreman et al., 2005) and who had higher levels of previous education (Sharma, Moore, & Sonawane, 2009) showed more positive attitudes towards IE. However, the studies of Oswald and Swart (2011) and Forlin and Chambers (2011) reported that pre-service teachers who had completed courses in IE were more willing to include students with disabilities in their classrooms, but surprisingly their level of practical concerns increased after completing the course.

Significant differences in attitudes have been found amongst pre-service teachers preparing to teach in primary versus secondary grades. Researchers in Australia (Woodcock, 2011) and Mexico (Forlin et al., 2010) reported that primary-level pre-service teachers hold more positive attitudes towards IE than their secondary-level counterparts. The focus of teaching in secondary classrooms on teaching subject matter and covering large amounts of content may make these educators less inclined to focus on individual students and address their individual needs (Avramidis & Norwich, 2002).

Some researchers explored the relationship between previous contact and interaction with children with disabilities and pre-service teachers' attitudes towards IE. Researchers from Israel (Romi & Leyser, 2006), Australia (Carroll, Forlin, & Jobling, 2003), and Mexico (Forlin et al., 2010) found that contact with persons with disabilities is a significant predictor of positive attitudes towards IE. However, Forlin and Chambers (2011) reported that pre-service teachers who have had the most interaction with people with special needs were more concerned and less favourable in supporting those children in inclusive settings in comparison to the other group of teachers who had limited or no contact. Analysing the findings, Forlin and Chambers (2011) reported that pre-service teachers who have had contact might be assuming the idea of segregation as the appropriate norm. They further reported that contact with children with special needs during the training might have made them aware of their responsibilities, which ultimately contributed to increasing concerns. Therefore, it is not if pre-service teachers have had contact but it is the type of contact that influenced participants' attitudes. Educators with positive interactions are likely to form positive attitudes.

Pre-service teachers perceived teaching-efficacy for inclusive education

Pre-service teachers' self-efficacy for teaching, also known as the perceived teaching-efficacy, is an important construct that predicts their behaviour and motivation in

the classroom (Pajares, 1992). The concept of 'self-efficacy', which is a similar construct to perceived behavioural control (Ajzen, 2005), is defined as an individual's belief in his or her own ability to execute required behaviour successfully to get expected results (Bandura, 1997). It implies that if a person does not believe that she or he can generate a desired effect through her or his acts, she or he will not have enough motivation to conduct the act (Bandura, 1997). Therefore, self-efficacy beliefs can be considered as a driving force to human actions. Many studies (Lancaster & Bain, 2007; Main & Hammond, 2008; Romi & Leyser, 2006) have used the term 'self-efficacy' to represent teachers' efficacy for teaching. In this study the term 'perceived teaching-efficacy' or teachers' self-efficacy is used to discuss specific aspects of teaching-efficacy in inclusive classrooms. Bandura (1997) stated that 'teachers' perceived teaching-efficacy' has impact on generating an effective teaching-learning environment.

Researchers have found that pre-service teachers' perceived teaching-efficacy regarding IE has direct relevance to what teachers do in the actual classroom (Moeller & Ishii-Jordan, 1996; Paneque & Barbetta, 2006; Sharma, Loreman, & Forlin, 2011). For example, Ben-Yehuda, Leyser, and Last (2010) reported that teachers with a high perceived teaching-efficacy contributed more through their own skills and abilities in developing students' academic and social development in an inclusive classroom. Several other studies (Gao & Mager, 2011; Weisel & Dror, 2006) have reported that pre-service teachers with a higher perceived teaching-efficacy towards IE tend to show more positive attitudes towards including children with different socio-cultural diversities in inclusive settings.

Some studies (e.g. Forlin et al., 2010; Romi & Leyser, 2006) have examined how factors such as age, gender, grade level of teaching, previous training, teaching experience, interaction with people with disabilities, policy knowledge about IE, and course content could impact on pre-service teachers' perceived teaching-efficacy for IE. It has been found that secondary-level pre-service teachers tend to have a lower level of perceived teaching-efficacy than primary-level pre-service teachers (Baker, 2005; Forlin et al., 2010; Woodcock, 2011). In another study, primary-level Mexican (Forlin et al., 2010) pre-service teachers also had a higher perceived teaching-efficacy than their secondary-level counterparts. Clough and Lindsay (1991) argued that at the secondary level teachers become more focused about teaching subject-matter which tends to make them less welcoming of students with diverse abilities in the classroom. Their focus on subject-matter makes them concerned that the presence of students with diverse abilities might make classroom management more challenging for them.

The relationship between pre-service teachers' gender and their perceived teaching-efficacy has also been examined by several researchers. Prior studies (Erdem & Demirel, 2007; Forlin et al., 2010; Gao & Mager, 2011; Romi & Leyser, 2006; Woodcock, 2008) reported that female teachers have a higher perceived teaching-efficacy than their male counterparts.

Researchers have also explored the impact of IE-related course content in the pre-service teacher education curriculum on pre-service teachers' teaching-efficacy for IE. Forlin et al. (2010) found that Mexican pre-service teachers showed a higher level of teaching-efficacy towards IE after attending the course. However, the researchers argued that one-third of the participants had no teaching experience with children with disabilities, while one-third had some and the other third had enough teaching experience. As a result, teachers with no and some experience showed

average levels of confidence for teaching those children in inclusive classrooms. Some other studies (Lancaster & Bain, 2007, 2010; Romi & Leyser, 2006) found that participation in the IE-related courses increased pre-service teachers' perceived teaching-efficacy towards IE. Surprisingly, a recent study of Woodcock, Hemmings, and Kay (2012) reported that little change was identified among pre-service teachers regarding their concerns and teaching-efficacy related to IE despite participating in an IE course. They assumed that shorter practicum experiences could be a possible reason to explain their findings.

Some researchers (Forlin et al., 2010; Romi & Leyser, 2006) have found that previous experience in teaching students with disabilities contribute to higher perceived teaching-efficacy among pre-service teachers than those who do not have any such experience. Also interaction with people with disabilities is often found to have positively influenced pre-service teachers' perceived teaching-efficacy for IE.

Context of the study

Bangladesh has developed policies to enact the goals of IE reform. For example, *The National Education Policy 2010* (Ministry of Education [MOE], 2010) mandates that all children, irrespective of their special needs, gender, ethnic backgrounds and socio-economic backgrounds, must be educated in mainstream primary schools. Several goals and objectives of *The National Education Policy 2010* addressed the values of IE in the following way:

> #07: Eliminate discriminations on grounds of nationality, religion, class and gender; build up an environment that promotes secularism, global-brotherhood, and empathy towards humanity and respect towards human rights.

> #22: Bringing all socio-economically disadvantaged children into education including street-children.

> #23: Ensuring the scopes of development of cultural and linguistic characteristics of all the indigenous and ethnic groups in Bangladesh.

> #24: Ensuring the rights of all children with disabilities.

> (MOE, 2010, pp. 1–2)

There are a number of challenges that may impact the success of IE reform. Bangladesh is situated in South Asia. It is one of the most densely populated countries (population density 962 persons/km^2) in the world with a population estimated at over 160 million. The current adult literacy rate is at 54% and primary school enrolment ratio is at 81% (UNICEF, 2010). Approximately 90% of children with disabilities in Bangladesh do not receive any form of education (Directorate of Primary Education [DPE] & Centre for Services and Information on Disability [CSID], 2002). A number of studies (Ahsan, 2013; Ahsan & Burnip, 2007; Ahsan & Mullick, 2013; Munir & Islam, 2005) have identified that preparation of pre-service teachers in Bangladesh does not adequately address IE. All pre-service teacher education curriculums in Bangladesh include components of professional knowledge (i. e. content knowledge and pedagogy); professional engagement (i.e. active learning, reflective practice), and professional practice (i.e. practicum). With respect to teach-

ing in inclusive environments and responding to student diversity, there is considerable variation in the curriculum of pre-service programs. The pre-service teacher education curriculum, offered by the Government Primary Teachers' Training Institutes (PTIs), includes a one-day IE training component. In secondary pre-service teacher education, through the Government Teachers' Training Colleges (TTCs) IE-relevant content has been embedded across the curriculum in a one-year B.Ed. program (TQI-SEP, 2006). In addition, some universities offer four-year B.Ed. programs for secondary teachers which include selected content (e.g. three one-hour classes on 'educating children with special needs'). *The National Education Policy 2010* (MOE, 2010) expressed concern regarding the overall quality of the pre-service teacher education programs in Bangladesh due to the maintenance of traditional 'rote-learning' teaching-learning approaches. Other studies have identified that traditional and or inadequate curriculum, resource constraints, large class size, lack of school–university collaboration, and inappropriate practicum experiences as contributors to inadequate preparation of pre-service teachers for IE (Ahsan, Sharma, & Deppeler, 2011, 2012; Mahbub, 2008).

Conceptual frame of the study

In recent years, researchers (Mahat, 2008; Randoll, 2008; Subban & Sharma, 2005) have articulated that teachers' attitude towards inclusive education is a strong predictor of their behaviour in the classroom. The Theory of Planned Behaviour (TPB) proposed by Icek Ajzen (1991, 2005) provides a useful model for understanding how attitudes are formed based on the impact of different background variables and also how attitudes are interpreted in predicting behaviour. Since its inception more than 26 years ago, the TPB has been widely applied in different disciplines and claimed to be a very successful model for predicting behaviour (Ajzen, 2011). The theory postulates that a person's behaviour is influenced or motivated by the intention to behaviour, and three independent determinants. These three determinants are a person's attitudes towards the behaviour, perceived behavioural control, and the subjective norm towards the behaviour. Attitude towards the behaviour is defined as an affective evaluation of a person of his or her performance of a particular behaviour, which can be positive or negative. The perceived behavioural control is a person's perception towards their control over performing a behavioural action through analysis of available environmental components such as opportunities and resources. Ajzen (2005) noted that the perceived behavioural control is a similar construct of Bandura's (1997) self-efficacy and it plays an important role in developing intention as well as performing actual behaviour. Subjective norms are conceptualised as the perceived social pressure from relevant others that determine whether or not to perform a behavioural action. Therefore, the more favourable a person's attitudes and subjective norms as well as the greater the perceived behavioural control are, the stronger should be his or her intention to perform the behaviour (Ajzen, 1991, 2005).

This study used the TPB as a conceptual framework to explore pre-service teachers' attitudes and perceived teaching-efficacy for inclusive education in Bangladesh. This study further postulated that a subjective norm component, such as beliefs and opinions of heads of pre-service teacher education institutions, could help to understand their constructs of attitudes and teaching-efficacy towards IE in Bangladesh.

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Considering the importance of attitudes and teaching-efficacy of pre-service teachers towards IE as predictors of their preparedness, several studies examining these two constructs have been conducted in Western countries (Baker, 2005; Carroll, Forlin, & Jobling, 2003; Cook, 2002; Woodcock, 2011). Nevertheless, a very limited number of studies have examined pre-service teachers' preparedness in the South Asian context. This paper reports the factors that could influence pre-service teachers' attitudes towards and perceived teaching-efficacy for IE in Bangladesh. This study was conducted in two phases. The findings of Phase 1 of this study have been reported elsewhere (Ahsan, Sharma, & Deppeler, 2012a). This paper provides in-depth analysis of three variables that showed significantly different findings to previous research in relation to both attitudes and teaching-efficacy scores. In order to further understand the reasons for the differences in these findings, additional data were collected in Phase 2 by using semi-structured interviews with six administrative heads of the pre-service teacher education institutions. Benefits of conducting two-phase research are reported in many studies as such research allows the Phase 1 findings to be examined more intensively and thus opportunities for more in-depth analysis and interpretation of the findings can be allocated (Ben-Yehuda, Leyser, & Last, 2010; Dunne, 2002; Kim, 2011; Lewis & Burman, 2008).

This paper specifically aims to answer the following research questions:

- What is the level of attitudes and perceived teaching-efficacy of pre-service teachers regarding teaching in inclusive schools in Bangladesh?
- Is there any significant relationship between pre-service teachers' attitudes towards and perceived teaching-efficacy for IE and the following variables:

  (1) *Demographic variables* (age, gender, educational qualification, experience of teaching children with disabilities, contact with persons with disabilities, teaching experience); and
  (2) *Teacher education course-related variables* (length of the pre-service teacher education course, level of training involved [primary/secondary])?

Brief summary of Phase 1 study

The detailed findings of the Phase 1 study were presented in Ahsan et al. (2012a). This section presents brief summary findings of the Phase 1 study.

Participants for this study were 1623 pre-service teachers from primary-level ($N = 890$, 54.8%) and secondary-level ($N = 733$, 45.2%) pre-service teacher education institutions. Among the participants, 38.9% ($N = 631$) were male and 61.1% ($N = 992$) were female. The majority (88%, $N = 1429$) of pre-service teachers were in the one-year programs and the rest (12%, $N = 194$) were in the four-year program.

The Director General of the Directorate of Primary Education was requested to select six PTIs situated in six administrative divisions out of 55 PTIs all over Bangladesh. Similarly, the Director General of the Directorate of Secondary and Higher Education was requested to select six TTCs out of 14 government TTCs. All the pre-service teachers enrolled in the final term/year/semester in those institutions were invited to participate in the study and based on voluntary participation the

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responses were taken. A three-part survey questionnaire was used to collect data from participants. In Bangladesh, two public and two private universities offer four-year Bachelor of Education programs. Information about these institutions was collected from the University Grants Commission web page. All four institutions were approached for the study and data were collected as described above (see Table 1).

A three-part survey questionnaire was used in this phase. Part 1 gathered pre-service teachers' demographic information (such as age, gender, educational qualification, previous teaching experience, presence and type of disability, experience of teaching children with special needs, experience of dealing with persons with disabilities, length of training, level of training involved, and more). Part 2 was comprised of the Teacher Efficacy for Inclusive Practice (TEIP) scale (Sharma, Loreman, & Forlin, 2011). It uses a six-point Likert-type scale and consists of 18 items. It was used to measure pre-service teachers' perceived teaching-efficacy for IE. In Part 3, a four-point Likert-type Attitude subscale of the Sentiments, Attitudes, Concerns Regarding IE (SACIE) scale (Loreman, Earle, Sharma, & Forlin, 2007) was used with pre-service teachers.

Findings of the Phase 1 study indicate that the overall mean score of the attitude subscale was 2.81 (SD = 0.54), suggesting that pre-service teachers in this study had moderately positive attitudes towards IE. The overall mean score of the perceived teaching-efficacy of the pre-service teachers on the TEIP scale was 4.84 (SD = 0.52). Thus, pre-service teachers in this study had a relatively high level of perceived teaching-efficacy towards IE.

Using the ENTER method of Multiple Regression analysis, applying all demographic variables in a model against pre-service teachers' attitudes, only two variables, level of training involved ($\beta = 0.089$, SE = 0.036) and gender ($\beta = 0.056$, SE = 0.031), emerged as significant predictors of pre-service teachers' attitudes towards IE.

Similarly, six variables: length of training ($\beta = -0.158$, SE = 0.028), level of training involved ($\beta = 0.063$, SE = 0.033), gender ($\beta = -0.053$, SE = 0.029), knowledge of local legislation on disability rights ($\beta = 0.131$, SE = 0.016), confidence in teaching a student with disability ($\beta = 0.128$, SE = 0.015), and interactions with persons with disabilities ($\beta = 0.118$, SE = 0.027), were found to be the significant predictors of perceived teaching-efficacy.

Analysis of the quantitative findings in Phase 1 found that some findings were in sharp contrast to previous studies and required further investigation. Those were as follows:

Table 1.   Phase 1 participants of the study.

Level of pre-service teacher education programs	Type and number of institutions	Number of participants	Total number
Primary	Six primary Teachers' Training Institutes	890	890
Secondary	Six Teachers' Training Colleges	539	733
	Four universities (two public and two private)	194	
Grand total (*N*)			1623

(1) Secondary-level pre-service teachers had more positive attitudes (mean = 2.86, SD = 0.56) and higher perceived teaching-efficacy (mean = 4.88, SD = 0.53) for IE than their primary-level counterparts (attitudes: mean = 2.77, SD = 0.51; teaching-efficacy: mean = 4.79, SD = 0.51). This finding contradicts with previous studies, which reported that primary-level pre-service teachers had higher levels of perceived teaching-efficacy (Baker, 2005; Forlin et al., 2010; Wood-cock, 2011) and more positive attitudes (Forlin et al., 2010; Woodcock 2011) than the secondary-level counterparts.

(2) Female pre-service teachers showed more positive attitudes (mean = 2.82, SD = 0.53), but lower perceived teaching-efficacy (mean = 4.79, SD = 0.51) towards IE than males (attitudes: mean = 2.79, SD = 0.55; teaching-efficacy: mean = 4.90, SD = 0.54). Recognising more positive attitudes among female pre-service teachers is consistent with other research studies (Loreman et al., 2005; Romi & Leyser, 2006; Wood-cock, 2008), but identifying lower teaching-efficacy amongst female participants than their male counterparts was also in sharp contrast with other studies (Erdem & Demirel, 2007; Forlin et al., 2010; Gao & Mager, 2011; Romi & Leyser, 2006; Woodcock, 2008).

(3) Pre-service teachers who were on four-year courses showed lower levels of perceived teaching-efficacy (mean = 4.65, SD = 0.59) than those who were on one-year courses (mean = 4.86, SD = 0.51). This finding also contradicts the popularly held belief that longer length of training is better for developing higher teaching-efficacy of pre-service teachers than shorter training (Carroll, Forlin, & Jobling, 2003; Rademacher, Wilhelm, Hildereth, Bridges, & Cowart, 1998; Theaker, 2008).

Phase 2 study

Methodology

Participants

Participants for the Phase 2 study were six institutional heads (IHs) from the teacher education institutions from the total pool of 16 institutions from Phase 1. All six IHs were males as no females agreed to participate in Phase 2 of the project.

Data collection and analysis procedures

A summary of the findings from Phase 1 was presented to each of the IHs in an individual interview. IHs were then asked to consider these findings and provide their perspective in explaining why the results were in contrast to previous international research.

Interviews were audio-recorded and transcribed in Bangla language. To understand the differences in contradictory data, interpretive and reflexive interview listening and reading procedures (Denzin, 2001; Power, 2004) were followed. This technique allowed researchers to re-listen to the audio-recording to consider the intonation and voice quality of the interviews, re-read the transcribed data, and rethink the personal characteristics of the interviewees, such as gender, social status, and social positions of the participants in a specific country context. This also

allowed the facial expressions to be recalled and the physical environment of the interview sessions to be analysed in order to understand the exact meaning of the contradictory data. A transcribed interview document was emailed to each IH for their feedback and then revised accordingly to ensure confirmation of appropriate transmission of their messages in the transcribed data (Brantlinger, Jimenez, Klinger, Pugach, & Richardson, 2005).

The key aims of the study and the literature review guided the researchers in the analysis of the interview findings. Themes were extracted from the data through coding (Denzin & Lincoln, 2000). Coding and analysis of data used on transcriptions were in Bangla language for better understanding of the contextual and cultural issues related to participants. Codes were reviewed, to ensure reliability, by another researcher who was not directly involved in the study but was familiar with the Bangladesh context. Data that were not related to the aim of this study were excluded during analysis. Identities of IHs were kept anonymous. Finally, themes were translated into English.

Phase 2 findings

Findings addressing the key questions are presented below.

Curriculum

Participants identified several curriculum-related characteristics of local teacher education programs as possible reasons to explain the findings of Phase 1 of the study that are inconsistent with previous research. The primary-level curriculum has not been revised for many years (Ahsan, 2013; Munir & Islam, 2005) and consequently very little information regarding IE is covered. In contrast, the secondary-level teacher education curriculum has been revised substantively in terms of both duration and content to address IE. As one institutional head explained:

> My observation is that Certificate in Education [primary] program does not have IE in the existing curriculum at primary level. As a result, those programs are providing a separate one-day orientation workshop on IE to the pre-service teachers. Whereas, in the B.Ed. [secondary] program, topics about IE are embedded in the whole curriculum and pre-service teachers are exposed to the values and ideas of inclusive education all year round. This could be a reason behind such inconsistent results in teachers' responses. (IH-6)

Quality of the pre-service teacher education programs with appropriate content received priority by the IHs rather than the length of the programs for preparing pre-service teachers for IE. According to some IHs, the curriculum of the four-year pre-service teacher education program does not address the IE issue adequately, which could act as a barrier to improving pre-service teachers' attitudes and perceived teaching-efficacy for IE. While the one-year program seemed to be more effective for preparing pre-service teachers for IE.

> My opinion regarding this finding is that pre-service teachers in the four-year program follow a more theory-based curriculum. Therefore, they consider IE as one of the theoretical components of their course. On the other hand, one-year programs are more designed to reflect learning into the school environment. This difference in curriculum design might contribute to better teacher preparedness for IE through one-year programs. (IH-6)

Government's IE program

Special emphasis on IE by the Government in some teacher education programs that included workshops and additional training have been identified by IHs as a reason behind the inconsistency in findings.

First of all, this factor could have explained one possible reason behind the inconsistency in findings related to primary- and secondary-level pre-service teachers. While implementing curriculum at primary and secondary levels, better orientation and availability of extra resources through the Teaching Quality Improvement Project (TQI) of the Bangladesh Government at secondary level could also explain to some extent why teachers at this level feel better prepared to teach in inclusive classrooms compared to their primary-level counterparts.

> Secondary-level pre-service teachers have received more support through the government orientation programs where an emphasis is given to IE. For this reason, awareness increased among the secondary-level pre-service teachers, this type of initiative is absent in primary-level pre-service teacher preparation programs. To me this could be the reason why they [secondary-level pre-service teachers] are more positive. (IH-3)

In addition, the Government's IE program could have also contributed to the differences in findings related to course length. IHs identified the Government initiatives for IE taken in the one-year programs as one important factor promoting IE among the trainees, which has been absent in the four-year pre-service teacher education program.

> I have noticed that IE has received enhanced emphasis in the one-year teacher education programs through the Government orientation programs on IE, which is absent in four-year program. In addition, in the four-year teacher education course, IE is presented in a small unit. Compared to that, one-year programs provide a lot of emphasis on practical implementation ideas of IE at school level. As a result, they are more aware of IE than those who are in four-year programs. These things add to better teacher preparation through one-year programs. (IH-2)

Teacher characteristics

The educational background of pre-service teachers could explain at least two findings in Phase 1 that are inconsistent with previous research. In Bangladesh, the Government recruits primary-level pre-service teachers. The minimum level of qualification for entry into primary-level teacher education programs is Grade XII, whereas for secondary education it is a Bachelor's degree. The IHs have identified that these differences in the educational backgrounds of teacher programs could explain some of the significant differences observed in their preparedness.

> I have noticed that teachers who are recruited at the secondary level for the teaching profession have higher educational qualifications than the primary-level pre-service teachers. Most of the secondary-level pre-service teachers possess a Masters degree though the entry requirement is a Bachelor degree. I believe that this provides them with more confidence in teaching subject matters such as Bangla, English History as well as dealing with pedagogical issues. (IH-1)

> To the best of my knowledge, pre-service teachers who are enrolled in the one-year teacher education program have higher educational qualifications than those who are in the four-year program. Because the four-year university-based programs enrol fresh

high school graduates (Grade XII completed). But in one-year programs most of them have Bachelor or Masters degrees. This higher education background makes them more knowledgeable and mature than those who are in four-year programs. This might be a reason behind differences in the status of teacher preparedness between those two groups. (IH-1)

Secondary teacher educators also have a higher level of educational qualification than their primary-level counterparts. Some IHs identified this as a reason for the differences in the reported lack of preparedness of primary-level pre-service teachers.

At secondary level, highly qualified teacher educators teach in pre-service teacher education. Some of them have been educated in Western countries. But, primary-level teacher educators have lower levels of educational qualifications than secondary teacher educators. This could also contribute to better teacher preparedness at the secondary level. (IH-1)

The age of pre-service teachers was considered by IHs to contribute to graduates' lack of preparedness to teach in inclusive classrooms. Pre-service teachers in the four-year program are typically younger, having just completed high school (Grade XII; age range 19–23 years), compared to their counterparts in the one-year programs who have completed university degrees and are also older.

Students who are in the four-year teacher preparation programs offered by universities are very young [fresh Grade XII graduates] when compared to the graduates in C-in-Ed. and B.Ed. programs [most of them have Bachelor and Masters degrees]. Their young age could be a factor that has contributed to their lower level of confidence as they may have limited understanding about the profession compared to the older group. (IH-3)

Gender-specific cultural influences

According to the IHs, the culture in Bangladesh has substantive and specific influences on women's attitudes, behaviour, and confidence, and this may explain the finding regarding their lower perceived teaching-efficacy. It is critical to highlight that all of the participants who were interviewed were male.

IHs noted that as IE addresses equity in terms of gender, it may make Bangladeshi females more positive about IE reform.

Yes, I support the finding that female pre-service teachers are more positive about IE. This is because the gender equity issue itself is a part of the values of IE. Females are discriminated against in various social contexts in Bangladesh. So, female pre-service teachers become more attracted to the concept than male counterparts. But the field-level scenario is quite opposite where male teachers do better. In addition, I think the reason is that male teachers have more opportunities to work in real-life situations than the female teachers to receive work experience. This increases the self-confidence of male teachers. (IH-2)

IH-3 explained that gender discrimination is causing the insecurity among females in the context of Bangladesh that may result in lower confidence levels:

I think our social context is a contribution to this result. We talk about gender equity but we cannot implement it in the context of Bangladesh. Consequently, women in general do not get enough social support to be independent in Bangladesh. It could be

affecting their confidence level in general. Their attitudes are found to be positive, which could be an indication of their desire to move forward by accepting social changes. They could also identify themselves as the members of the society who are not given enough opportunities to be successful and thus they tend to feel positive about inclusion of students who have special needs. (IH-3)

One IH believed that positive attitudes of female teachers originate from their motherly affections observed in females in Bangladeshi social context, but social challenges for women in Bangladeshi context make them feel less confident.

> My analysis is that men and women are different both biologically and psychologically. Females are motherly in nature. So, they feel more strongly about including and caring for all children than male teachers. That is why their attitudes could be more positive than male pre-service teachers. But when it comes to the confidence issue, female teachers tend to stay behind their male counterparts because of the socio-cultural context of Bangladesh. Men get more opportunities, which helps them to be more confident than females to take on challenges. Therefore, female teachers feel emotionally 'yes' to implement IE. But when they become concerned about facing such challenges, their confidence level declines. (IH-6)

The above findings indicate that socio-cultural issues regarding gender are found to be a hidden factor in the society. Therefore, these issues require careful consideration for policy formation and successful implementation of a pre-service teacher education program for IE. In addition, such issues require more in-depth study to understand the scenario clearly.

Discussion and conclusion

The purpose of the study was to predict Bangladeshi pre-service teachers' preparedness for IE, including an examination of their attitudes and perceived teaching-efficacy for IE. Based on the analysis of mean scores on two scales, it was found that pre-service teachers have reasonably positive attitudes and high levels of perceived teaching-efficacy for IE. Though several significant predictors were found, this paper discusses findings in relation to three variables that were not consistent with findings from previous research, namely the level of training (primary/secondary), gender (male/female), and the overall length of training (one year/four years). Several themes extracted from interview data in the Phase 2 study provided possible explanations regarding the inconsistencies. It is important to highlight that while the views expressed by the IHs provide insider perspectives, they do not fully explain the findings, particularly as the views are from six male IHs. Not a single female IH was willing to participate. It is possible that a larger pool of IHs and including female IHs would have provided different outcomes, were women available to speak for themselves. In addition, it may be that as IHs are 'at a distance' from the classroom their views may not accurately represent those of the teachers.

Interviews with IHs identified aspects of curriculum as a reason for the differences with previous findings. Analysis of the findings indicate that appropriate and adequate curriculum content related to IE is a significant component in preparing pre-service teachers for inclusive classrooms irrespective of their level of preparedness (primary or secondary). The positive impact of curriculum on pre-service attitudes and teaching-efficacy beliefs has been reported in other studies as

well; for example, by including IE components in pre-service teacher education (Lancaster & Bain, 2007, 2010) and through embedding special education-related instructions (Brown, Welsh, Hill, & Cipko, 2008).

Furthermore, this study identified that appropriate curriculum content was more important for teacher preparedness than the length of the program. This is supported by previous studies, conducted in Cyprus (Angelides, Stylianou, & Gibbs, 2006), Mexico (Forlin et al., 2010), and in the United States (Cook, 2002), that have reported that simply attending inclusive pre-service teacher education course is not sufficient for developing positive values and beliefs for IE. Rather curriculum content, practicum opportunities, and experience with children with disabilities all contribute to better preparation of pre-service teachers for inclusive classrooms.

IHs identified the impact of the Government's IE program as a possible explanation of the inconsistencies in findings related to primary- and secondary-level pre-service teachers' preparedness to teach in inclusive classrooms. These findings further support that it is the content of the teacher education curriculum rather than the factors such as length of the course or level of training (e.g. primary or secondary) which directly impact on teacher preparedness. It would further suggest that teacher education programs in Bangladesh need to determine what critical skills, knowledge, and attitudes pre-service teachers need to have to be effective IE teachers. Also, it would be useful if the teacher education programs could identify what curriculum content and practicum experience these teachers need to have to be effective inclusive teachers. In this regard, a large body of research (e.g. Florian & Linklater, 2010; Florian & Rouse, 2009) already exists which may provide initial guidance in determining the content of the program.

It is evident that several socio-demographic characteristics may explain some of the differences in these findings compared with previous research. For example, the higher educational qualification required for entry to the secondary pre-service teacher education programs compared with their primary-level counterparts may have contributed to different results for these two groups of teachers. In addition, IHs have reported possible explanations for the differences in findings is that teacher educators at secondary level have higher educational backgrounds than primary-level teacher educators. These findings are also consistent with the Phase 1 data that pre-service teachers with higher background education showed evidence of higher confidence to teach in inclusive classrooms and positive attitudes towards including students with disabilities into mainstream classrooms. A similar impact of background education was reported in the Indian pre-service teacher preparedness context (Sharma, Moore, & Sonawane, 2009). IHs have reported that the younger age and lower educational background of pre-service teachers enrolled in the four-year programs may be contributing to less positive attitudes and lower levels of perceived teaching-efficacy than their one-year counterparts. The above findings are consistent with Ajzen's (2005) concept of TPB that proposed that educational background, age, and some other demographic variables have impact on developing pre-service teachers' attitudes and perceived teaching-efficacy. Moreover, influence of teacher educators' educational background on pre-service teachers' preparedness for IE could be explained as a subjective norm component (Ajzen, 1991, 2005) postulated in the TPB. This component of the TPB considers that there is an influence of other surrounding relevant people on a person's attitude and confidence development.

There are some socio-cultural contextual issues related to South Asian societies that were raised by the IHs that could have contributed to the findings related to

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gender. IHs expressed that female pre-service teachers in Bangladesh may have positive attitudes for two reasons. Firstly, females are 'more motherly in nature' and therefore more willing to accept IE and related issues in the context of Bangladeshi society. This finding is consistent with a meta-analysis conducted by Avramidis and Norwich (2002), which reported that females were more tolerant to the changes towards IE. Secondly, IE is underpinned by social justice principles of equity. It may be that IE is particularly attractive to females in this context because it draws attention to the importance of gender equity. IHs argued that females had a lower level of perceived teaching-efficacy because of the negative effects of perceive gender bias and discrimination in the Bangladeshi society. IHs believed that the prevailing discriminatory practices towards women in terms of social insecurity and opportunities for work, and social interaction, resulted in lower levels of confidence compared with men. These views are supported by evidence from studies conducted on gender and equity in the Bangladesh context (Anam & Ahsan, 2002; Nasreen & Tate, 2007) and in other South Asian countries (Acharya, 2007; Jayaweera & Gunawardena, 2007). This finding can be explained by the TPB (Ajzen, 1991, 2005) in that an individual's intention to behave in a particular way is influenced by their previous experience and social exposure. It follows, therefore, that if female teachers in Bangladesh were provided with increased opportunities to work in schools then they are more likely to feel increased confidence efficacy to teach in these schools. However, currently such opportunities for all teachers, including females, are limited in Bangladesh. The implementation of IE will require future research to further understand these and other social and cultural influences on the preparation of pre-service teachers in Bangladesh.

A major limitation of these findings is that the study did not include the views of the pre-service teachers themselves in order to understand their perceptions regarding the findings of Phase 1. Therefore, further studies are needed that include pre-service teachers to understand their perspectives. It might also be that the findings may have had different outcomes and IHs may have expressed different opinions regarding the issues if they had not been informed about the Phase 1 findings. Hence, further research is needed to confirm and build upon these findings. However, one of the significant findings of this study is that it is not the length of the teacher education program that matters; rather it is the quality of the teacher education program that contributes to teacher preparedness for IE. This has important implications for the design and form of teacher education programs in Bangladesh. Ultimately, future research must explore whether what we have identified as discrepancies or inconsistencies with previous research merely represents the gap between the rhetoric and the practice.

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Chapter Summary

The manuscripts presented in this chapter explored pre-service teachers' preparedness for IE in Bangladesh by learning about their attitudes, teaching-efficacy and concerns for IE. The impact of several background variables on pre-service teachers' preparedness for IE was identified. The studies conducted in the two phases identified several variables and contextual factors that may have impacted upon the readiness of pre-service teachers' for IE. It appears, from the analysis, that the findings may have several policy and curriculum reform implications for improving pre-service teachers' preparedness for IE. However, what was not yet clear from these investigations was whether IHs would identify alternative factors that might have been left unexplored through the quantitative methods and that might act as challenges to preparing pre-service teachers for IE. The other issue that was not explored was whether IHs who participated in this study had a clear understanding about the concept of IE. Therefore, Chapter 6 addresses IHs' beliefs about IE and the challenges they identified for preparing pre-service teachers for IE in the context of Bangladesh.

CHAPTER 6

Exploration of Beliefs of Institutional Heads about Pre-service Teacher Education for IE in Bangladesh

Introduction

"beliefs are the best indicators of the decisions individuals make throughout their lives" (Pajares,1992, p. 307)

The findings from the investigation into the beliefs of institutional heads (IHs) regarding IE in Bangladesh are presented in this chapter in the form of published papers. These two qualitative papers describe the employment of semi-structured interviews with 22 IHs and the thematic analysis procedures that were followed to analyse the interview data. The first paper, Paper 4, titled 'Beliefs of pre-service teacher education institutional heads about inclusive education in Bangladesh', examined the beliefs regarding IE of the IHs of higher education institutions that offer pre-service teacher education in Bangladesh. Analysis of the interview documents indicated that IHs had a limited understanding of IE, with a majority believing that IE was the 'enrolment of children with disabilities' into regular schools. It was, further, found that there could be several factors that may present challenges to the preparation of pre-service teachers for IE in Bangladesh. What was not possible in this part of the analysis was determining how the IHs interpret these challenges and what strategies they suggest to address them. Therefore, further analysis of interview findings was undertaken and is presented in Paper 5.

Paper 5, 'Challenges to prepare pre-service teachers for inclusive education in Bangladesh: beliefs of higher educational institutional heads', based on thematic analysis of the interview data derived from the 22 IHs, identified several challenges under four themes: attitudinal beliefs, academic challenges, challenges in practicum and challenges for beginning teachers. The interviewees identified some useful strategies to address those challenges. Collectively, the two qualitative papers enabled the researcher to critically examine the interpretations of IE by the IHs and their beliefs about the challenges that present when preparing pre-service teachers for IE in Bangladesh.

Declaration for Publication

Considering the relevancy between the subject matter of the manuscript and the aims, scopes and circulation of the journal, this paper has been published in a national peer-reviewed, academic journal titled *Bangladesh Education Journal* jointly published by Bangladesh Forum for Educational Development, UNESCO-Dhaka and IED-BRAC University.

Reference:

Ahsan, M. T., Sharma, U., Deppeler, J. (2011). Beliefs of pre-service teacher education institutional heads about IE in Bangladesh. *Bangladesh Education Journal, 10* (1), 9-29. Available at: http://www.bafed.net/ejournals.php

Declaration by candidate

The nature and extent of contributions to the work involved the following:

Name	Nature of contribution	Extent of contribution (%)
M. Tariq Ahsan	Initiation of the concept of the manuscript, development of ideas, prepared the draft manuscript, incorporated other author's comments in final manuscript, prepared and submitted for publication, *First author*	80%
Umesh Sharma	Feedback on study design and draft manuscript, *Co-author*	10%
Joanne M. Deppeler	Feedback on study design and draft manuscript, *Co-author*	10%

Candidate's Signature		Date	05/06/2014

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, VIC 3800, Australia

Signature 1		Date	19/06/14
Sig		Date	20/06/14

Beliefs of Pre-Service Teacher Education Institutional Heads About Inclusive Education in Bangladesh

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Abstract

This paper investigates beliefs about inclusive education of heads of higher education institutions that offer pre-service teacher preparation programs in Bangladesh. Since 2003, Bangladesh started including children with diverse needs in regular schools in both primary and secondary education. However, pre-service teacher preparation institutions are not yet fully ready to prepare teachers for a diverse classroom. In this journey of education reform, heads of the institutions that are offering pre-service teacher education in Bangladesh have a key role in better preparing future teachers for inclusive education. A thematic analysis procedure was administered on 22 institutional heads using a semi-structured interview guide. Themes extracted from the interview data were reforming teacher education programs, providing additional assistance during practicum, importance of pre-service teachers' motivations in relation to their profession, meeting all children's learning needs in the same class, awareness about equal right to education and concerns about including children with severe disabilities. Implications of the findings for further improving the pre-service teacher education programs in Bangladesh are also discussed.

Key Words: *Pre-service teacher education, Inclusive education, Beliefs, Bangladesh.*

I. Introduction

"I sing of equality.
There's nothing greater than a human being,
nothing nobler!
Caste, creed, religion--there's no difference.
Throughout all ages, all places,
we're all a manifestation
of our common humanity".

(Kazi Nazrul Islam's poetry 'Human Being' in Huda, 2000, p. 266-268)

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Inclusive education is premised on a philosophy of educational reform that gives the highest priority to equal right to education for all people irrespective of their diverse circumstances, as pronounced in UNESCO's Salamanca Declaration (UNESCO, 1994). Bangladesh, like many other countries, is moving towards inclusive education. Bangladesh is the signatory of a number of international agreements such as Education For All - EFA 1990 (UNESCO, 1990), Salamanca Framework of Action (UNESCO, 1994), Dakar Framework for Action (UNESCO, 2000) and the Convention on the Rights of Persons with Disabilities (UN, 2008). In line with these international accords, Bangladesh has taken several policy initiatives to promote inclusive education. The most recent national education policy statement known as the Education Policy 2010 recognises inclusive education as a strategy to ensure education for all citizens (Ministry of Education [MOE], 2010). In addition, large scale projects like the Second Primary Education Development Program (PEDP II) at primary level and Teaching Quality Improvement in Secondary Education Project (TQI-SEP) at secondary level have components of inclusive education (Ahsan & Burnip, 2007).

Education Policy 2010 proposed that one of the aims of teacher training programs is to ensure equal access of children to education irrespective of social class, gender, religion, and ethnicity. It also called for developing strategies to meet in the same classroom the learning needs of all children with their diverse background and circumstances (MOE, 2010). Similar to these initiatives in Bangladesh, developing countries like India (Alur, 2009; Sharma & Deppeler, 2005; Singal, 2005), Brazil (Santos & Silva, 2009), Tanzania (Grönlund, Lim & Larsson, 2010) and South Africa (Daniels, 2010; Naylor, 2009) have also taken policy initiatives in favour of inclusive education. It is evident that developing countries are adopting policies in support of inclusive education, but they face challenges in effective implementation of these policies. One significant area that deserves attention in this regard is how higher education institutions that offer pre-service programmes prepare teachers for inclusive education.

Vital to the success of Education for All is teacher quality. An extensive research literature provides evidence that teacher quality is the single most important variable for influencing student achievement (Gustafsson, 2003; OECD, 2005). Pre-service teacher education builds for future teachers the base of knowledge and skills and prepares them to face challenges related to their profession (Wilke, 2004). Research also suggests that pre-service teacher education is the best time to develop positive sentiments and minimize concern about inclusive education among pre-service teachers (Loreman, Sharma, Forlin & Earle, 2005; Sharma, Forlin, Loreman, & Earle, 2006). The Salamanca declaration articulated the importance of teacher preparation for successful implementation of inclusive education, as stated in Article 41:

> Pre-service training programmes should provide to all student teachers, primary and secondary alike, positive orientation toward disability, thereby developing an understanding of what can be achieved in schools with locally available support

services. The knowledge and skills required are mainly those of good teaching and include assessing special needs, adapting curriculum content, utilizing assistive technology, individualizing teaching procedures to suit a larger range of abilities, etc. In teacher-training practice schools, specific attention should be given to preparing all teachers to exercise their autonomy and apply their skills in adapting curricula and instruction to meet pupils' needs as well as to collaborate with specialists and co-operate with parents. (UNESCO, 1994: 27)

Positive impact of well-planned pre-service teacher education programs designed for diversity in classroom were reported by several research studies conducted in Australia (Carrington, Deppeler & Moss, 2010) and USA (Gettinger, Stoiber & Koscik, 2008). Some studies also identified various concerns of pre-service teachers in facing classroom diversity. For example, inadequate resource support during pre-service teacher education programs were identified as a barrier to teacher preparation in studies conducted in India (Sharma, Moore and Sonawane, 2009) and Hong Kong (Chong, Forlin & Lan, 2007). Other studies (Chai, Teo & Lee, 2009; Chong et al., 2007) reported short course length as a challenge to preparing pre-service teachers properly. In other Indian studies (Alur, 2001; Sharma & Deppeler, 2005; Singal, 2005) lack of resources; negative beliefs and attitudes towards the concept of inclusive education and inadequate training of teachers were identified as significant barriers towards implementing inclusive education.

According to an OECD (2009) study, it is vital to understand teachers' beliefs, attitudes and practices if we wish to improve the status of any education system. Although a number of studies have been conducted on pre-service teachers' beliefs and attitudes towards inclusive education, the beliefs and attitudes of the heads of the higher teacher education institutions have not received much research attention.

Researchers have identified various issues related to new responsibilities of higher education institutions in the context of an inclusive, diversity-focused pre-service teacher education. Suggestions have been made (Booth et al., 2003; Burstein et. al, 1999; Campbell & Fyfe, 1995; Jangira, 1995; Price & Valli, 1998) about redesigning and reforming the existing teacher education curriculum for meeting the demands of inclusive education. However, changing only the curriculum may not prepare pre-service teachers adequately. Booth et al. (2003) in their edited book titled Developing Inclusive Teacher Education noted that teacher education institutions have to develop variety of favourable inclusion friendly policies for maintaining a favourable, flexible and inclusive environment inside the institution. This policy development idea was also echoed in other studies (Forlin et al., 1999; Melnick & Zeichner, 1998).

Ensuring a quality and diversity focused practicum experience (Burstein et. al, 1999), development of collaborative roles between universities and schools as well as among different professional groups (Booth et al., 2003; Burstein et. al, 1999; Campbell & Fyfe,

1995; Melnick & Zeichner, 1998) and positive attitudes of teacher educators towards these new changes (Booth et al., 2003; Forlin et al., 1999) were identified as some other required initiatives of higher education institutions to implement quality teacher preparation for inclusive education. It is evident that for bringing such changes in the higher education institution, the role and responsibility of the institutional head, who is in a leadership position, and beliefs and attitudes that motivate him or her, are of critical importance.

Many countries which have embarked on teacher education reforms have faced various challenges in preparing pre-service teachers' for inclusive education through their revised programs. Research conducted in countries like Cyprus (Angelides, Stylianou & Gibbs, 2006), USA (Harvey, Yssel, Bauserman & Merbler, 2010), and Hong Kong (Forlin, 2010) have revealed that the curriculum structures and instructional strategies might not be preparing teachers who would be confident to teach in inclusive classrooms.

Studies by Angelides et al. (2006) and Harvey et al. (2010) found that teacher educators themselves were unclear about their roles in meeting demands of inclusive education through practicum experiences, resource mobilization and collaborative training initiatives promoted for preparing pre-service teachers. A Cyprus study on preparing pre-service teachers through higher education institutions conducted by Angelides et al. (2006) reported that though higher education institutions were claiming that they were preparing teachers for a broadly conceived inclusive education approach, pre-service teachers saw this as confined to special education (i.e. deviant, abnormal, special needs) in their lesson plans. It appears that a curriculum based on a "medical model" acted as a barrier to changing pre-service teachers' beliefs towards inclusive education. Therefore, understanding of a teacher preparation curriculum by the teacher educators to make it genuinely inclusive is necessary.

What constitutes a good pre-service teacher education curriculum with positive impact on teacher preparation remains an issue (Lancaster & Bain 2007, 2010; Oh et al., 2010; Sari, Çeliköz & Seçer, 2008; Woodcock, 2008). Insertion of inclusive education related topic in the pre-service teacher education curriculum may not solve the problem. As Angelides et al. (2006)'s noted, the Government's rigid policies towards maintaining curriculum contents were not inclusive-friendly and drove teacher educators to teach subject matters in a traditional manner. This study further reveals that gaps between theories taught in the universities and practices in the practicum schools were also barriers to preparing teachers properly. These concerns point to the importance of a holistic change in the teacher education institutions along with changes in curriculum components. Pro-active leadership is vital in the teacher preparation institution to bring such reforms.

Fullan (1993) suggested that any educational innovation or reform demands new skills, changes in belief and as a consequence, changes in behavioral aspects as well. Research studies have shown that teachers' beliefs about teaching-learning are formed in the very early stage of their career and they may be rigid about changing such beliefs (Kagan, 1992;

Munby, 1982). Pajares (1992) argued that beliefs of teachers influence their judgments and perceptions that ultimately affect their professional preparation. Success of higher education institutions in addressing these challenges through teacher preparation for inclusive reforms is very much dependent on the beliefs and roles of the heads of those institutions. This is because leadership has been identified as an important component for addressing such change (Price & Valli, 1998). As Fullan (2002) suggests, "Leaders have a deeper and more lasting influence on organizations and provide more comprehensive leadership if their focus extends beyond maintaining high standards" (p.17). Leadership is an important component to bring new changes in a process (Kouzes & Posner, 1987) and adapt new understandings and ideas through skill development (Senge, 1996). Even a single leadership role can promote change in an organization (Reeves, 2004). Inclusive reform initiatives in the higher education institutions that are preparing pre-service teachers have to start from the leadership positions for its acceptance to others. Heads need to play the role of an inclusive leader to bring inclusion friendly change in their institutions.

Bangladesh like many other countries throughout the world is attempting to address the inequities in access and quality in the education system. Though the Government started implementing inclusive education since 2003, the primary level teacher preparation curriculum was not revised to address diversity (Munir & Islam, 2005; NAPE, 2001). The secondary level teacher preparation curriculum was last revised in 2006 and inclusive education philosophy was embedded in different parts of the new curriculum (National University, 2006). The National Education Policy (2010) chapter on teacher training that discussed both pre-service and in-service teacher education (Chapter 24) stated that:

> Existing teacher training programs in Bangladesh is very traditional, incomplete, certificate-oriented, theory-based, providing less practical opportunities, rote-learning based and following traditional assessment system. Therefore, we are not getting a satisfactory outcome through this. (MOE, 2010, p. 56).

Munir and Islam's (2005) study on the review of the primary level pre-service teacher preparation curriculum for inclusive education revealed that absence of inclusive education related information in the curriculum, traditional teaching learning approaches and rote learning based assessment systems were principal barriers to preparing teachers adequately for inclusive education. Ahuja and Ibrahim's (2006) study conducted for UNESCO that evaluated the state of inclusive education in Bangladesh also reported that pre-service teacher education programs were not enabling teachers to be competent and confident for inclusive classrooms.

Institutional heads have specific roles and responsibilities in Bangladesh, as elsewhere, in implementing reform. These include administrative roles within institutions, resource mobilization, management of pre-service and in-service training, and overseeing day-to-day operations. How the head of the institution carries out these multiple roles and functions is

influenced by personal beliefs, attitudes and values, which ultimately may determine if the reforms succeed or fail.

II. Teacher beliefs and pre-service teacher education

Beliefs have been considered one of the important elements in teacher education. They constitute a complicated construct due to their very nature which do not lend themselves easily to empirical investigation (Pajares, 1992). Kagan (1992)'s and Pajares (1992)' pointed out that teacher beliefs bear different labels, such as, opinion, concept, attitudes, perspectives, orientations and more. Pre-service teachers bring into the program beliefs of their own about teaching. Kagan (1992)'s study showed that pre-service teachers hold a personal view of a good teacher, they possess their own identity as a teacher and also embrace their own memories in school life that shape their beliefs about their profession. These beliefs influence their thoughts in two major areas: towards teaching-learning approaches and towards teacher education programs.

Smylie (1988)'s pathway analysis study found that teachers' beliefs are the most important indicator of their change through the teacher education program. Beliefs about teaching-learning approaches are formed prior to their entrance to the program and tend to remain unchanged (Pajares, 1992). Nespor (1987)'s and Kagan (1992)'s study revealed that though pre-service teachers are exposed to new information and knowledge in the program, they tend to retain their preconceived beliefs.

Most pre-service teachers' have certain ideas about the efficacy of their teaching abilities. (Richards & Killen, 1994). In the beginning of the program pre-service teachers express more traditional, behaviourist, control oriented approach to teaching learning, as they believe that maintaining classroom discipline is the most important part of good teaching. Most pre-service teachers showed less attention to theories discussed in the program as they thought that real learning would take place during practicum (Jaram & Gabrielle, 1998; Wubbels, 1992). If the teacher preparation program provides the opportunity, they tend to become more constructivist gradually (Mansour, 2009; Yilmaz & Sahin, 2011).

Kagan (1992) added that beliefs are a kind of personal knowledge that is based on assumptions which often guide teachers' behaviour, whereas knowledge is based on objective truth and fact. Pajares (1992) and Richardson (1996) suggested that teachers have to be challenged by real-life problems to change their pre-existing beliefs. Bandura's (1997) social cognitive theory also mentions four influences on changing a person's beliefs: vicarious experience that relates to feeling of personal success, role-modelling that includes observing other peoples' success, emotional arousal and verbal persuasion. Therefore, key people like institutional heads and teacher educators in the pre-service teacher education programs have to ensure that trainees are challenged to face and assess reality, thus becoming receptive to new ideas and accepting of the need for change.

This study was undertaken to understand beliefs of institutional heads about inclusive education. More specifically we were interested in finding out these key stakeholders' perceptions about how adequately pre-service programs prepared teachers to teach in inclusive classrooms in Bangladesh. We were also interested in finding out their perceptions about what could be done to further improve teacher education programs.

III. Methodology

A qualitative methodology was followed to gain a comprehensive understanding of the beliefs and views of the institutional heads (IH) in relation to the implementation of inclusive education in Bangladesh. A semi-structured face-to-face interview schedule was designed that allowed researchers to create good rapport with the interviewee as well as keeping the interview on the right track to get quality data. Questions were open-ended and researchers had freedom to change the approach of questioning according to the demands of the interview situation, as the value of this flexibility was seen in the literature on research methods (Cohen, Manion & Morrison, 2007; Creswell, 2008).

The questions in the interview schedule were based upon the researchers' judgement about issues that helped researchers extract belief related information from the interviewees. Interview principles followed Brenner (1981)'s guidelines that allowed researchers to present all questions in an established language developed in the schedule so that comparisons could be made among the responses. Prompt questions were asked to get further clarifications, respondents' comprehension of the questions were checked if it was required and also repeated, if asked. Interviewees had freedom not to answer any question, and no explanation was given that might influence the responses. Respondents were assured of avoiding confidential information in the recording of the interviews and in the research report.

Participants

Heads (i.e. Deans/Directors of the Faculty in universities; Principals of Teachers' Training Colleges; and heads of Primary Teachers' Training Institutes known as 'superintendents') of the higher education institutions that offer pre-service teacher education in Bangladesh were selected as participants of this study. Interviewees were selected from three types of institutions; Primary Teachers' Training Institutes (PTIs), government Teachers' Training Colleges (TTCs) and universities.

Bangladesh is divided into six administrative divisions (Dhaka, Chittagong, Rajshahi, Sylhet, Barisal and Khulna). To get representation of all six divisions, the Director General (DG) of the Directorate of Primary Education (DPE) was requested to select six PTIs from the six divisions out of 55 PTIs all over Bangladesh. The heads of the selected six PTIs were interviewed for this study. In addition to heads of those six institutions at primary level, two additional institutional heads were selected to participate in the study: the head of the Inclusive Education Cell of the DPE and the Director General of National Academy for

Primary Education (NAPE). These two institutions played a significant role in primary level pre-service teacher preparation curriculum development and in running teacher educator development programs.

Similarly, the DG of the Directorate of Secondary and Higher Education (DSHE) was requested to select six TTCs out of fourteen government TTCs following the same criteria that all six administrative divisions would be covered. The heads of the six TTCs were interviewed for this study.

In addition, Deans/Directors of the Education Faculty/Department of all eight universities recognized by the University Grants Commission (UGC) that offer pre-service teacher preparation programs at secondary level were interviewed. Information about these institutions was collected from the University Grants Commission (UGC) web page.

In total, twenty two (22) heads were interviewed. Table 1 provides details of the participants:

Table 1: Participants of the Study

Level of Pre-service Teacher Education Programs	Type of Institutions	Number of Heads	Total Number
Primary	Primary Teachers' Training Institutes (PTIs)	6	8
	Inclusive Education Cell, Directorate of Primary Education, MOE	1	
	National Academy for Primary Education (NAPE)	1	
Secondary	Teachers' Training Colleges	6	14
	Universities that offer pre-service teacher education	8	
Grand Total (N)			22

Data analysis

Interviewees were asked to sign a consent form. Identities of all the interviewees were kept anonymous. Interviews were audio-taped with the written permission of the participants. All interview data were transcribed in Bangla language. The transcriptions were e-mailed to the participants and revised based on their feedback (Brantlinger et al., 2005).

A thematic analysis was used to analyse the transcribed documents and themes were extracted from the data through coding (Denzin & Lincoln, 2000). While coding and analyzing the data, transcriptions in Bangla language were used to get the exact meaning of vocabularies used by the interviewees. In the end, all the analysed data were translated into English. Some issues appeared repetitively in the interviews (e.g., reforming teacher

education programs, assistance during practicum, and meeting all children's learning needs in the same class). Those were coded and similar codes were grouped by generating hierarchy trees. Themes were then derived from the grouped codes.

The key aims of the study and the literature review guided the researchers' analysis of the interview findings. To reconcile apparently contradictory data, interpretive and reflexive interview listening and reading procedures (Denzin, 2001; Power, 2004) were followed. This technique allowed researchers to re-listen the recording to consider the intonation and voice quality, re-read the transcriptions, rethink the personal characteristics of the respondent, such as, social status, gender and positions of the interviewees in a specific country context, recall the facial expressions and also analyse the physical environment of the interview sessions to understand the exact meaning of the contradictory information.

IV. Results

The participants' expressed opinions were used to explore their beliefs about inclusive education. The themes that emerged from their responses indicating their beliefs can be categorized under six headings, as presented below.

Necessity of reforming teacher education program

When respondents were asked about the capability of the present pre-service teachers to teach in an inclusive classroom, majority of the participants believed that these trainee teachers were not ready to teach in inclusive classrooms. They believed that it would be possible only if adequate training was provided during their pre-service teacher education stage.

> "I do not think it would be possible for existing pre-service teachers to teach in an inclusive classroom. If they are trained adequately, then it is possible". (IH-09)

Interviewees believed that to prepare teachers properly for inclusive classrooms the existing pre-service teacher preparation curricula required rigorous revision including review of existing practicum provisions in the curriculum. Interviewees reported that inclusive education issues were not addressed properly in the curriculum and in some cases, a few items were added in an existing chapter. For example, one interviewee mentioned that only disability related information was included in the name of inclusive education reform at the university level pre-service teacher training programs:

> The Ministry of Education (MOE) through the University Grants Commission (UGC) sent us a letter to include information about teaching strategies for children with disabilities in the existing pre-service teacher education curriculum. We could not revise the whole curriculum in response to that letter. What we did was that we included a unit in the Methods of Teaching course. (IH-01)

Another participant mentioned about the primary level pre-service teacher preparation curriculum: "We have some information in the educational psychology course. But it is not

sufficiently elaborate; so more information is needed" (IH-05) A majority of the participants expressed their concerns about the current status of preparedness of pre-service teachers for inclusive education.

Assistance during practicum

The participants agreed that in addition to adequate preparation in universities, pre-service teachers would also require extensive support at the time of undertaking their teaching practicum, both in and out of classrooms.

Interviewees were concerned that pre-service teachers are not getting a sound practicum experience as part of their training. One reason identified by many interviewees was that schools to which the trainee teachers were sent did not have any orientation on inclusive education in most cases. As a result, they did not enrol children from disadvantaged backgrounds and pre-service teachers could not experience a diversity focused inclusive classroom. One participant mentioned:

> They are not getting an experience of an inclusive school. Opportunities are much less in rural schools…schools are not ready yet for inclusive education. More awareness raising is needed for that. (IH-12)

Interviewees demanded more assistance at school level for a teacher to perform effectively in an inclusive classroom. While including children with special needs in the regular classroom, participants indicated that these classrooms needed support in respect of accessibility of facilities, assistive devices, primary care and special care in the classroom.

> … in the school [during practicum] there must be special arrangement for children with visual or hearing impairment. For example sitting arrangement, teaching materials, and blackboard should be appropriate for all children. (IH-02)

The need for additional support in the practicum classroom for pre-service trainees was echoed by other participants as well:

> [Inclusion of diverse children] means one teacher will teach all of them. So the (pre-service) teachers should be well-trained and have endurance. It is really very tough and challenging to teach different types of children in a classroom and in that case the teacher should be very experienced. Nevertheless, there would be lots of obstacles as there would be children with disabilities. These children would need one type of behavioral support or teaching method and the general students would need other ones. I think it is very difficult to create different types of teaching environment at the same time. (IH-20).

Additional teaching materials and educational material support were also mentioned by interviewees. Pre-service teachers are placed in regular schools during their practicum and normally these classes are very large in size. The need for reducing the large class size was frequently mentioned by the participants.

In Bangladesh, both primary and secondary classrooms are crowded. Student-teacher ratio is on an average 67:01. In such situation, it is not possible for a pre-service teacher to adjust themselves to the children with special needs. So they follow a general teaching-learning approach for all students. (IH-07).

You may see that in some cases ratio is one teacher to 100 students. So, it becomes very difficult for the teachers to teach them even the general subject matters. I think it is not possible for poor teachers to meet the demands of all children including children with special needs. I think it may be possible only if we recruit more teachers and increase the facilities and number of classrooms. (IH-01).

Interviewees suggested increasing teacher number and physical facilities to solve the problem. Classroom assistance theme also included the demands of interviewees for primary care or early intervention support before bringing children from disadvantaged backgrounds into regular classrooms:

It depends somewhat upon what is meant by different kinds of children. The socially disadvantaged children who are actually occupied in child labour, you can include them in a regular school and that should be done, I suppose. But those [Children] with physical problems, there is need for a second thought about this. They should be provided some sort of primary care first. (IH-09).

Pre-service teachers' motivation
Participants mentioned about teachers' personal motivational issues for effective implementation of the values of inclusive education.

Teachers are the most important persons for imparting education. They will do everything [required for improving the classroom environment]....Teachers must have a proper pre-service training and motivation for doing that will develop their insight. In the end, I think a teacher [after attending pre-service training] should treat all the students in the same way and should like all of them. (IH-02).

Respondents also believed that those people who have an aptitude for teaching should be recruited in this profession. Some said that they found many teachers in the pre-service programs who had little interest in teaching and came to the course just to take the certificate for getting promotion or to receive an increment in salary. They also reported that many pre-service teachers were preparing themselves for other professions or were involved in other professions as well while they were in the program. They suggested redesigning the primary school teacher recruitment process so that only motivated people were recruited in teaching profession and sent to the pre-service teacher preparation programs.

Government or private organizations who recruit teachers, have to recruit qualified teachers, identifying those who choose teaching as a profession. People genuinely interested in teaching should be brought into the profession. They could get other good jobs if they wanted, but would not go for that, as they wanted to do only teaching. (IH-01).

Meeting all children's learning needs in the same class

Interviewees believed that traditional teaching-learning approaches have to be changed in preparing pre-service teachers properly. One interviewee pointed out that traditional beliefs of pre-service teachers about teaching-learning approaches were sometimes found to be very strong. Those strong preconceived beliefs may not change during teacher preparation programs. The respondent gave importance on changing motivation of the pre-service teachers through the training program.

> Only training will not work, the teachers also have to apply that properly in the classroom. Most of the time we can see that after going to the classroom the teachers do not apply their training and teach the students by using traditional method. So what's the need of training? I think teachers' motivation have to be changed first [through pre-service teacher education], so that they treat all the students in the same manner and apply their learning gained during training. (IH-02).

It was noteworthy that some institutional heads themselves believed in the traditional approaches of teaching-learning. Their statements in the course of the interviews revealed that several issues influenced such beliefs. Expressions used by the respondents such as 'problems of disability', 'less IQ', 'normal child and special child' and so on clearly indicated their beliefs supporting the medical model of disability.

The following statement is an example of the inclination of some of the institutional heads towards the medical model of disability that views limitations of children with special needs first, rather than their potentials, and compares them with typical abilities of so called 'normal' children:

> Well... yes, various sorts of challenges, not only about the classroom or courses but many others, regarding aspects of diversity come in front of us. For example, we can notice that there are children with different special needs; some have hearing impairment, some cannot speak, some have visual impairment, and other physical disabilities, or may have some other conditions like less IQ or mental retardation. As every individual has specific problems, so it is without any doubt a great challenge for the teacher to teach such pupils simultaneously in the same manner as the normal children. (IH-03).

Similar response was also found in the statement of IH-04:

> I do not think it is possible [for a regular teacher to support all children in a diverse classroom]. As they teach normal pupils, their way of teaching may not be appropriate for the students with special needs. And, therefore, they will not be able to teach either in the right way. So this [inclusive] procedure may prove to be harmful for both [normal and those with special needs) types of students. I would say that it is better not to practice inclusion" (IH-04).

The respondent was strongly opposed to the concept of inclusive education, "Actually in Bangladesh, we don't have the facilities to teach [diverse children] in the same classroom. So I don't support it" (IH 04). The respondent also feels that segregated education approaches are better for some groups: "Yes, I think it will be much more effective to educate them separately if we have the facilities." The segregated traditional teaching-learning approaches were also supported by another interviewee:

> There is difference in language and culture [among students]. So, I think if a specialized system can be offered for them [with special needs] then it will be better. For example, all children with hearing impairment can be provided with a special environment with a special teacher and in the same way it can be done for the children with visual impairment also. There is a psychological difference among the children. So it will be better if we can make such arrangement for them. (IH-15).

Equal right to access in education

Some participants had very positive beliefs towards the values of inclusive education and urged realization of equal right of all children to education. For example:

> My opinion is that those who are disadvantaged, in the sense that they are deprived at home and in society as well, should be identified. They have grown up without love since childhood and have not received any care from anywhere. They are a large group in our society. I want to thank the government for the effort to bring them into the mainstream. If we do not do so, a large group in society will stay deprived. Those, whom we think as our burden, can become our wealth. More facilities in the classroom can bring them into the mainstream. (IH-17).

Equal right to access in education was echoed in the following comment:

> Approximately, 35% of our population is below poverty level; the children of this segment, almost all, drop out due to poverty, language and some other reasons. In such cases, the first target of inclusive education is to ensure their access and maintain the quality of primary education. Moreover, to ensure access of the children in special circumstances, attention is needed to groups such as the fishermen, ethnic communities/tribes, or nomadic children who live on boats in Barisal district. (IH-18).

It appears that the participants were familiar with the issues in inclusive education due to different government initiatives recently taken in favour of inclusive education. The above statements are a reflection of these policy and program initiatives.

"Inclusion not good for children with severe disability"

Some institutional heads were concerned about including children with severe disabilities in the inclusive education programs. Special education was prescribed by those interviewees

for children with all types of severe disabilities. For example, an institution head said, "There could be some problems in including children with intellectual disabilities in the regular education. There should be separate streams of education facilities for them, especially, for those who have severe special needs" (IH-18).

Similarly, IH-22 commented:

> My opinion is that the people whom we consider as the low-income group in the context of socio-economic condition should not suffer any discrimination in education. It is a must to ensure education for the children of the poor and illiterate with the children of the rich and literate and the classroom should be same. Second thing is that we should also bring the children with special needs in the same classroom. But there should be a limit, because children with severe disability would not be advantaged by this; but children with mild disability can benefit from inclusive education. (IH-22).

One interviewee raised another important issue of parental concern, esspecially in the urban areas, in including children with special needs in the regular classroom:

> Well, inclusion of all kinds of students in a school may not be the right way. Especially, in the urban areas where many of the parents are from higher class in society; there may be resistance from them - not being interested in accepting their children studying with the children with special needs. But it may be possible in the rural areas. (IH-04).

Difference in the context of rural and urban school settings were also mentioned by other participants. A large number of participants see the concept of inclusive education as including only children with disabilities in the regular education. When they were asked to express their opinion about inclusive education, they commented only about issues related to inclusion only of children with disabilities.

V. Discussion and conclusion

Beliefs are significant indicators of teachers' future actions (Bandura, 1986, 1992; Tschannen-Moran, Hoy & Hoy, 1998). Analysis of the interviews of the institutional heads revealed their beliefs about inclusive education. The findings shed light on what is happening in the teacher education programs and what could be done to further improve this sector to prepare teachers for meeting the challenge of including students with diverse abilities into regular classrooms. No claims are made that the data from the participants present a comprehensive picture of what is happening in Bangladesh teacher education. Information presented in this study does represent views of one group of key stakeholders in primary and secondary teacher education.

Themes extracted from the opinion of the institutional heads indicate that they believed a good quality pre-service teacher preparation program was a pre-requisite of successful

implementation of inclusive education. They were concerned that the existing pre-service teacher training programs were not sufficient to prepare teachers effectively for inclusive education, especially in challenging and re-examining their beliefs in a positive manner. This finding is supported by studies conducted in Australia (Premier and Miller, 2010) and in the Netherlands (Pijl, 2010) that reported insufficiency of course content and recommended revising existing curriculum for addressing the values of inclusive education. Garner (2000) expressed this concern in respect of U.K. arguing for a considerable change in the existing pre-service teacher training course content and in the structure.

A confusion regarding a broad concept of inclusive education, within which disability-related special needs are only one element, and equating inclusive education with education for special needs permeated the responses and clearly influenced the beliefs and attitudes of the respondents. A second source of confusion was a broad concept of special needs that recognises a spectrum of abilities of learners as a natural and normal phenomenon and thinking about disabilities as a special condition represented by the "medical model." This duality contributed to ambivalence in respondents' beliefs and perceptions. It appears that the policy and programmatic initiatives taken in primary and secondary education to encourage inclusive education as well as paying attention to "special needs" in the mainstream schools did not articulate or clarify sufficiently the official position. Nor did they examine or elaborate the implications for strategy and action of the varying interpretations of the concepts.

The lack of clarity and absence of consideration of the implications can also be seen in the teacher preparation curricula, program content and their implementation. The new education policy of 2010, while recognising the importance of inclusive education, and the role of teacher preparation for this purpose, did not go further in providing guidelines for conceptual clarity and operational aspects of implementing inclusive education (MOE, 2010). Influence of medical model was also apparent in the curriculum reform initiatives as changes took place in the form of adding some disability related information in a unit of any course in complying with Government's instruction to the pre-service teacher education institutions for curriculum reform. This situation is similar to the experience of medical-model based curriculum reform initiatives mentioned in the Angelides et al. (2006) study conducted in Cyprus.

Many participants expressed a discomfort and or were uncertain about the right position to take when it came to the situation of children with severe disabilities vis-a-vis their inclusion in the mainstream. Absence of a clear policy stance added to the uncertainty. It was not, therefore surprising that beliefs and attitudes of heads of teacher preparation institutions manifested a degree of confusion and even contradiction. Forlin (1995)'s and Forlin, Loreman, Sharma, & Earle (2009)'s studies also found that teachers and educators were more negative in accepting children with severe disabilities. This was mostly, as mentioned earlier, because of believing in the traditional approaches to teaching learning. Besides,

participants' expression and use of vocabulary during interview such as 'normal pupils' clearly stated that they believed in the concept of medical model of disability. This model tends to consider differing abilities as deviance to be treated and handled separately from the mainstream is justifiably discredited from an educational and human rights point of view (Loreman, Deppeler, & Harvey, 2005) and points out a child's deficits first rather than improving teaching-learning approaches to address all children's needs (Ainscow, 1997).

While there might have been divergent positions about the concept and scope of inclusive education, interviewees generally in agreement about the need for additional resources and support for successful teacher preparation for inclusive classrooms, especially in the practicum part of it. They believed that schools were not ready yet to be inclusive and recommended more awareness raising programs for making the school environment more inclusive so that they welcome pre-service teachers' initiatives in favour of values of inclusion. In this point, a suggestion can be made for developing collaborative programs between university/institution and schools. During practicum activities, various ranges of assistance were demanded through reducing class size, providing resource support and providing special support for including children with special needs through environmental modification and early intervention programs. Lack of resources could be mentioned as a global phenomenon as such challenge was identified in studies conducted in the US (Harvey et al., 2010), India (Sharma et al., 2009) and Hong Kong (Chong et al., 2007).

There was a general agreement among respondents in respect of their beliefs about the deficiencies in provisions and facilities in schools that undermined the general principles of individualised and learner centred teaching learning, which also would address the need for the concept inclusive education. The main suggested strategy in this regard centred on differentiated and individualised teaching- learning, especially in a large class such as, small-group activities, maximizing use of space in and out of the classroom, introducing team teaching, peer-tutoring, teaching assistantship in the classrooms, and efficient time management. It is noteworthy that none expressed belief in an alternative way of considering large class size as a source of extended resource for classroom activities or scope of practicing more creative teaching-learning and classroom management as suggested by UNESCO (2006)'s toolkit for managing large class size for inclusive education. Research studies (Benbow, Mizrachi, Oliver & Said-Moshiro, 2007; Pasigna, 1997) and literature (UNESCO, 2006) on large class size management suggested that such challenge can be well-managed by improving teachers' skills, motivations and providing opportunities to apply their innovations and problem solving skills. One implication of this study clearly is greater attention to large classroom management issues in the existing teacher preparation curriculum of Bangladesh.

Recognising the limitations of the school facilities and provisions and the deficits in respect of teacher deployment, training and preparation, many participants felt the necessity of having "primary care programs" for the children from disadvantaged background before

they are brought to the regular classrooms. These appear to suggest the importance of early intervention programs to identify and assist children currently or prospectively with special needs. Interviewees also believed that pre-service teachers' aptitude, interest and motivation regarding teaching as a profession were a vital factor in successful implementation of inclusive education. They recommended revision of the government's current teacher recruitment policy and practice so that appropriate people who have aptitude for the profession could be attracted to and kept in teaching.

One concern raised by respondents was how pre-existing personal beliefs and values about human nature, teaching-learning, occupations and occupational and professional goals brought by teacher trainees into the program constrained the process and outcome of teacher preparation. Such a concern is justified as revealed in studies by Nespor (1987) and Kagan (1992). These studies affirmed that though teachers gain new knowledge in training programs, they are mostly guided by their pre-existing personal knowledge or beliefs. In order to change such preconceived beliefs the trainee teachers have to be given the opportunity to face new experiences (Pajares, 1992; Richardson, 1996). Institutional heads recognised the difficulties about changing the beliefs of pre-service teachers and suggested careful consideration to revising the pre-service teacher education curriculum and the program to make them more practical oriented and problem-based in order to create opportunities for challenging and critically examining traditional beliefs. As Kagan (1992) noted, if we aim to change teachers' beliefs, first we have to make them aware of their own beliefs and then pose for them challenges through different real-life events.

Some of the participants were strongly supportive of the rights approach to equal educational access. They looked at inclusive education as a rights issue and expressed the belief that despite many challenges, the right to education had to be established in order to ensure education for all children. The rights-based approach supported the broad concept of inclusive education within which special needs education was seen as a sub-set. On the whole, however, the interview responses reveal that the interviewees gave a cautious and conditional support to inclusive education. They believed that implementation of inclusive education called for certain conditions to be met in the existing education system. Analysis of the study findings pointed at necessary policy measures for making the education system of Bangladesh more inclusive.

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Declaration for Publication

Considering the relevancy between the subject matter of the manuscript and the aims, scopes and circulation of the journal, this paper has been published in an international peer-reviewed, academic journal titled *Asia Pacific Journal of Education* published by Taylor & Francis Group.

Reference:

Ahsan, M. T., Sharma, U., Deppeler, J. (2012). Challenges to prepare pre-service teachers for inclusive education in Bangladesh: beliefs of higher educational institutional heads. *Asia Pacific Journal of Education (APJE),* 32 (2); 241-257. doi:10.1080/02188791.2012.655372

Declaration by candidate

The nature and extent of contributions to the work involved the following:

Name	Nature of contribution	Extent of contribution (%)
M. Tariq Ahsan	Initiation of the concept of the manuscript, development of ideas, prepared the draft manuscript, incorporated other author's comments in final manuscript, prepared and submitted for publication, *First author*	80%
Umesh Sharma	Feedback on study design and draft manuscript, *Co-author*	10%
Joanne M. Deppeler	Feedback on study design and draft manuscript, *Co-author*	10%

Candidate's Signature	███████████████	Date	05/06/2014

Declaration by co-authors

The undersigned hereby certify that:

(7) 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.

(8) 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;

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

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

(11)   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

(12)   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, VIC 3800, Australia

Signature 1		Date	19/06/14
Sign		Date	19/06/14

Challenges to prepare pre-service teachers for inclusive education in Bangladesh: beliefs of higher educational institutional heads

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This paper reveals the beliefs of higher education institutional heads about the challenges they face in preparing pre-service teachers for inclusive education in Bangladesh. Semi-structured interviews were conducted with 22 institutional heads. Data were analysed by applying thematic analysis procedure. Challenges were found in four theme areas: attitudinal beliefs, academic challenges, challenges in practicum and challenges for beginning teachers. Lack of appropriate information in the teacher preparation curriculum, untrained teacher educators, limited resources, inappropriate teaching-learning approaches, insufficient practicum experiences, and large class sizes were some of the major challenges identified. Participants also identified some useful strategies to address the challenges which ranged from curriculum reform, emphasizing practicum more than theories, human resource development empowering institutional heads to implement inclusion and resource support. Implications of the findings for university educators are discussed.

Keywords: pre-service teacher education; higher education institutions; teacher beliefs; inclusive education; curriculum reform; Bangladesh

Introduction

> The world-wide problem today is not how to unite by wiping out all differences, but how to unite with all the differences intact; a difficult task, for it permits of no trickery and calls for mutual give-and-take. (Tagore, 1911, in Tagore, 1967, p. 146)

Over the last few decades, inclusion has become a focus of international educational policy and reform to ensure equity in education for all students irrespective of their abilities or backgrounds such as Education For All (EFA) (Directorate of Primary Education [DPE] & Centre for Services and Information on Disability [CSID], 2002); Salamanca Declaration (UNESCO, 1994); Millennium Development Goals (United Nations, 2008); and the UN Convention on the Rights of Persons with Disabilities (UN Enable, 2008). Both developed (P. Forlin & C. Forlin, 1998; Mittler, 2004) and developing (Ahsan & Burnip, 2007; Alur, 2009; Singal, 2005) countries are engaged in meeting the challenges of inclusive education, ensuring schools are free from the negative effects of discrimination based on gender, disability, culture, ethnicity, religion or any other differences (UNESCO, 1994). Bangladesh has a strong commitment to meeting EFA goals for inclusive education as demonstrated through a number of national policies such as the National Plan of Action Phase II 2003−2015 (Ministry of Primary & Mass Education, 2003); National Education Commission Report 2010 (Ministry of Education [MOE], 2010) and teacher professional development initiatives that prioritize inclusive education (IE) as integral to mainstream

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education (e.g., the Second Primary Education Development Program [PEDP II] and the Teaching Quality Improvement [TQI]).

While legislative mandates and policy reforms are steps in the right direction, there remain many challenges that could hamper the progress of their implementation. One significant challenge faced by Bangladesh, and many countries with similar socio-demographic constraints such as India (Alur, 2001; Singal, 2005), South Africa (Prinsloo, 2001) and China (Deng & Harris, 2008; C. Forlin, 2010), relates to the inadequate preparation of teachers to meet the needs of children with different abilities in the regular classroom. Investment in high quality teacher preparation is essential for inclusive education reform. Successful inclusive classrooms are dependent on confident teachers with a high sense of efficacy and positive attitudes and who believe that all students can learn in the same classroom (Avramidis & Norwich, 2002; Lancaster & Bain, 2010). Research has demonstrated that pre-service education should include practical experiences in "real contexts" teaching diverse groups of children including those with disabilities (Brownlee & Carrington, 2000; Campbell & Fyfe, 1995; C. Forlin, 2008), and emphasize teaching practices that have been demonstrated to be effective in inclusive education contexts (e.g., cooperative learning, see works by Johnson; peer tutoring; and differentiated instruction, see Carroll, Forlin, & Jobling, 2003; Moeller & Ishii-Jordan, 1996) for them to feel more confident and positive about teaching children with diverse needs in their classrooms. Though inclusive education aims to make classrooms welcoming for all students irrespective of their ability or background, it has been reported that educators are facing the most discomfort and lack confidence in including children with special needs in their programmes (C. Forlin, Loreman, Sharma, & Earle, 2009). Therefore, special consideration should be given to addressing disability-related issues in teacher preparation programmes.

Although many researchers have written about the lack of preparation of pre-service teachers in developing countries to meet the challenges of inclusive education, there is limited research on what challenges are faced and how these challenges should be addressed. Implementing inclusive education policies is a systematic process that requires significant change in the roles and responsibilities of educators including higher education institutional heads, such as Deans and Directors of education faculties of different universities, Principals of different teachers' training colleges and institutes. "Change depends on what teachers think and do – it's as simple and as complex as that" (Fullan, 1982, p. 107), and change theories emphasize the importance of innovative leadership in bringing sustainable change (Fullan, 2006). Leaders who work innovatively inside institutional boundaries and at the same time go beyond those boundaries to involve additional people from the institutional surroundings bring about positive change in the system. Inclusive reform initiatives in higher education institutions have to start from the leaders in order for them to be accepted by others. Institutional heads need to play the role of an inclusive leader to bring about inclusion-friendly change in their institutions. Inclusive leadership is exemplary as it involves people through team work and encourages others to act as leaders and also promotes inclusive practices at the policy and organizational levels through reforming decision-making processes, initiating new ideas, involving and collaborating with other people and agencies beyond the institution (Ryan, 2006). As a result, the beliefs and understanding of heads of higher education institutions have a foremost role in reforming the entire institution towards inclusion.

In Bangladesh, heads (i.e., Deans/Directors of the faculty in a university; Principals of teachers' training colleges; Superintendents of primary teacher training institutes) of pre-service teacher education institutions play important roles in implementing inclusive education. In addition to administering their organizations, they network with other institutions, collaborate with schools, mobilize resources, manage pre-service and

in-service training programmes and conduct teacher training. Administrators in such leadership positions can work as change agents for improving teacher preparation programmes for inclusive education. There is a vast body of research which indicates that for leaders and educators to implement change policies, they must first believe in the concept and be willing to implement change (Kagan, 1992; Mansfield & Volet, 2010; Pajares, 1992; Richardson, 1996, 2003). Considering that institutional heads play such a significant role in the higher education sector, this paper explores the beliefs and opinions of these stakeholders about the challenges and suggested strategies to prepare our teachers for inclusive classrooms through the pre-service teacher education programmes in Bangladesh.

A number of features of other pre-service teacher education programmes have been identified as inadequate. A study conducted in India by Sharma, Moore and Sonawane (2009) found lack of resources as one of the major concerns in preparing pre-service teachers. Another study conducted in Hong Kong by Chong, Forlin and Lan (2007) also identified teachers' concerns about inadequate resource support during their pre-service education. Some studies (Chai, Teo, & Lee, 2009; Chong et al., 2007) reported shorter course length as a challenge in preparing pre-service teachers properly. Studies conducted in countries like India, South Africa and Hong Kong reported many challenges specifically relevant to the socio-cultural contexts in implementing inclusive education. A review of Indian literature conducted by Singal (2005) suggested that negative attitudes, ambiguous beliefs, and fragmented or unclear concepts of inclusive education among teacher educators, concerns about lack of resources and inadequate preparation of teachers were among the many challenges in implementing inclusive education. Other Indian studies (Alur, 2001; Sharma & Deppeler, 2005) revealed that concerns about lack of resources, negative attitudes and inadequate training of teachers were the major barriers in implementing inclusive education. Such challenges were also found in other countries in the Asia-Pacific region (C. Forlin, 2008). Research conducted in countries like Cyprus (Angelides, Stylianou, & Gibbs, 2006), the USA (Harvey, Yssel, Bauserman, & Merbler, 2010), and Hong Kong (C. Forlin, 2010) suggest that the teacher educators involved in the training of pre-service teachers lack confidence and use curriculum structures and instructional strategies that may not prepare confident pre-service teachers to teach in inclusive classrooms. Angelides et al. (2006) and Harvey et al. (2010) further report that practicum experiences provided to pre-service teachers are also inadequate. This research study would be one of the few on inclusive education in the context of Bangladesh to explore challenges in pre-service teacher preparation in terms of the beliefs of institutional heads.

Understanding the context of the study

The situation of inclusive education in Bangladesh is not very different from other developing countries. Bangladesh is situated in South Asia. It is one of the most densely populated countries in the world (population estimated at 160 million, population density 962 persons/sq km). Bangladesh is struggling to achieve education for all as well as to implement inclusive education. The current adult literacy rate is at 54% and the primary school enrolment ratio is at 81% (UNICEF, 2010). Some noteworthy policy initiatives have been made in favour of inclusive education. After signing the EFA in 1990, Bangladesh enacted the *Compulsory Primary Education Act 1990*, which was formally implemented in 1992 (DPE & CSID, 2002). Bangladesh also enacted the *Bangladesh Persons with Disabilities Welfare Act 2001*, which ensures the legal right of children with disabilities to receive education (Ministry of Social Welfare, 2001). Most recently Bangladesh developed the *Draft National Child Policy 2010* (Ministry of Women & Children Affairs, 2010). This policy emphasizes non-discrimination

of children, especially girls, children with disabilities, and children from disadvantaged backgrounds, including their right to education. A recently enacted policy (*The National Education Policy 2010*) also clearly describes the necessity of inclusion of diverse children, such as children with special needs, girls, children from ethnic and tribal communities, and children who are disadvantaged due to socio-economic reasons (MOE, 2010).

Despite a number of policy initiatives, 89% of children with disabilities in Bangladesh are without any form of education (DPE & CSID, 2002). Of those who attend school, a large majority frequently drop out within a few months or years. In addition, only 22% of children from the indigenous communities completed primary education (Sarker & Davey, 2009). Munir and Islam's (2005) review of the primary level pre-service teacher preparation curriculum reported that lack of inclusive education-related information in the curriculum, traditional teaching-learning approaches and rote learning-based assessment systems were challenges for inclusive education. Another study by Ahuja and Ibrahim (2006) which evaluated the state of inclusive education in Bangladesh also reported that pre-service teacher education programmes were not supporting teachers in becoming confident and competent for inclusive classrooms. Both studies recommended curriculum and policy reforms to address inclusive education through pre-service teacher education.

It is possible that countries like Bangladesh might be facing unique challenges at the higher education level that need to be understood and addressed. One way to find out what challenges this sector is facing is to understand the perspectives of higher education institutional heads who are involved in the training of novice teachers. The findings of this study have implications for higher education institutes in this country but also in countries that have similar socio-politico and demographic variables. Understanding the beliefs of institutional heads is also important from a leadership perspective. Considering that these heads are in a unique position to implement changes in the teacher training programmes, understanding their views about what challenges they face and how these could be addressed may provide useful directions for future higher education reform.

This study aims to answer the following research questions:

(1) What are the beliefs of the heads of departments of higher education institutions about inclusive education?
(2) What challenges do heads of departments of higher education institutions perceive in preparing pre-service teachers for inclusive classrooms?
(3) What strategies do the heads of departments of higher education institutions consider necessary to address the challenges?

Methodology

In order to gain a comprehensive understanding of the beliefs and views of the institutional heads (IH) in relation to the implementation of inclusive education in Bangladesh, a semi-structured face-to-face interview protocol was designed around seven questions.

(1) Attitudes to including children with diverse needs
(2) Key attributes of the pre-service teacher education courses
(3) Practicum areas in the teacher preparation programme
(4) Key strategies to develop teaching-learning skills among pre-service teachers
(5) Challenges of the teacher preparation programme and strategies to address these challenges
(6) Challenges of a beginning teacher and strategies to address those challenges
(7) Suggestions for improving the teacher training programmes

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This approach allowed the researcher to establish rapport with the interviewee and allowed flexibility to change the order of questioning according to the demands of the interview situation (Cohen, Manion, & Morrison, 2007; Creswell, 2008).

Participants

Heads (i.e., Deans and Directors of university faculties, Principals of Teachers' Training Colleges, and superintendents of Primary Teachers' Training Institutes) of the higher education institutions that offer pre-service teacher education in Bangladesh were selected as participants of this study. Interviewees were selected from three types of institutions: Primary Teachers' Training Institutes (PTIs), government Teachers' Training Colleges (TTCs) and universities.

Bangladesh is divided into six geographical locations (Dhaka, Chittagong, Rajshahi, Sylhet, Barisal and Khulna). To get representation of all six divisions, the Director General (DG) of the Directorate of Primary Education (DPE) was requested to select six PTIs that are situated in six divisions out of 55 PTIs all over Bangladesh. All the heads in those six selected PTIs were interviewed for this study. In addition to heads of those six institutions at the primary level, two additional institutional heads were selected to participate in the study. The two institutions were the Inclusive Education Cell of the DPE and the National Academy for Primary Education (NAPE). The purpose of selecting these two heads was because both these institutions play a significant role in the preparation of curriculum for primary level teacher education programmes and also in the professional development of teacher educators.

Similarly, the DG of the Directorate of Secondary and Higher Education (DSHE) was asked to select six out of 14 government TTCs following the same criteria in order that all six geographical divisions would be included. All the heads in those six selected TTCs were interviewed for this study. In addition, heads of the education faculty of all eight universities recognized by the University Grants Commission (UGC) that offer pre-service teacher preparation programmes at the secondary level were also interviewed. Information about these institutions was collected from the UGC web page.

In total 22 administrative heads were interviewed. Table 1 provides details of the participants.

Data analysis

Interviews were audio-taped with the written consent of the participants. All the interviews were transcribed in Bangla. A transcribed interview document was emailed to each institutional head for their feedback and then revised accordingly (Brantlinger, Jimenez, Klinger, Pugach, & Richardson, 2005). A thematic analysis was used to analyse the

Table 1. Participants of the study.

Type of institution	No. of Heads
Primary (*n* = 8)	
Primary Teachers' Training Institutes	6
Inclusive Education Cell, Directorate of Primary Education, MOE	1
National Academy for Primary Education	1
Secondary (*n* = 14)	
Teachers' Training Colleges	6
Universities that offer pre-service teacher education	8
Total (*N*)	22

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transcribed documents and themes were extracted from the data through coding (Denzin & Lincoln, 2000). While coding and analysing the data, transcriptions in Bangla were used to get the exact meaning of vocabulary used by the interviewees. In the end, all the analysed data were translated into English. While analysing, some issues appeared repeatedly (i.e., challenges and barriers) in different sections of the interview. Those were coded and similar codes were grouped by generating hierarchy trees. Then, themes were raised from the grouped codes. The conceptual framework of the study, research questions and literature review guided the researchers in analysing the interview findings.

Results

The findings of the study presented in this article are clustered around the two broad themes: challenges and strategies. Four major challenges were identified:

(1) Attitudinal beliefs
(2) Academic challenges
(3) Challenges in practicum areas
(4) Challenges for beginning teachers

Attitudinal beliefs

A series of questions were asked to gauge participants' attitudes about including children with diverse needs in regular education. The responses from the participants indicated that while a majority had positive attitudes towards inclusion, there were some who were apprehensive about the idea. Participants also expressed several concerns.

Positive attitudes

Participants who believed in the idea of inclusion agreed that inclusive education is the best option to ensure equal rights to education. For example, one participant expressed:

> Teaching different types of children in the same classroom is the prior aim of mainstream education. Ultimately we have to organize everything for teaching all children in the same classroom of the same school. Because, through this approach, children will be able to accept the diversity of one another, help each other, have respect for one another. (IH-8)

However, it is a question for further research to explore whether the institutional heads who expressed positive views towards inclusive education were also inclusive in their practices in the teacher preparation institutions.

Negative attitudes

Participants who were apprehensive about inclusion identified different reasons to rationalize their beliefs. For example, one participant indicated that inclusive education could be possible in rural schools, but not in urban schools. As urban parents are concerned about their children's peer group, they would not be favourable towards allowing children from diverse backgrounds in the same classroom. This comment raises a question as to whether the policies appropriately reflect the community's attitudes so that children in all communities (urban/rural) can get equal opportunities to access education. Some believed that including all children in a diverse classroom would not be a good idea at all. Most negative attitudes towards educating children with disabilities were related to the social stigma and prejudice about their abilities. IH-4 suggested,

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I do not think it is possible [for a regular teacher to support all children in a diverse classroom]. As they teach normal pupils, and their way of teaching may not be appropriate for the students with special needs... So, I would say that it is better not to practise inclusion.

Such comments indicate that some participants hold a belief in the construct of "normality", that all children should acquire the characteristics of a so-called normal child even though they have special needs. Interestingly, interview data revealed that nine participants believed that the only aim of inclusive education was to include children with disabilities in regular education.

Concerns

Participants identified a number of concerns about inclusive education. They believed that inclusive education was only possible if certain conditions were met, including the provision of adequate teacher preparation, minimizing class size, enhancing teacher motivation, modifying teacher attitudes, providing necessary resources, and ensuring that specialized support for children with special needs was available. The latter includes accessibility facilities, assistive device support, primary care and special care in the classroom.

Some were concerned about the severity of the special needs of included children and suggested that inclusive education would not be suitable for children who had severe special needs. IH-18 said:

Various problems could arise in including children with intellectual disabilities in the regular education. There should be separate stream of education for them. Especially, for those who have severe disabilities.

Moreover, IH-22 described:

It is possible to ensure education for the children of poor and illiterate with the children of rich and literate and the classroom should be same... But there should have a limit in bringing children with disabilities, because children with severe disability would not be advantaged by inclusive education.

Such responses indicated the participants' beliefs might be due to their lack of information about and experience in dealing with children with special needs.

Academic challenges

Most respondents believed that pre-service teachers would be competent to execute inclusive education but argued that teachers have to be prepared properly. Their concerns were that existing pre-service teacher education programmes were not sufficient for appropriate teacher preparation. Several themes emerged in the beliefs about the academic challenge areas, which included challenges in curriculum, motivation towards teacher education course, course length, class size and resources.

Challenges in curriculum

A majority of the participants believed that a lack of sufficient information about children with diverse needs and inclusive education in the existing pre-service teacher education was the biggest challenge in implementing inclusive education. For example, one participant said:

It [inclusive education] is not yet included in the existing teacher education curriculum. Because our books were published about 10 years ago and there is no chapter on inclusive education. (IH-11)

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This statement reflects that heads did not see inclusive education as the norm to be embedded in all parts of the curriculum, rather considered it as a new section of the curriculum. Another participant even opined that it would not be appropriate to bring children with diverse needs into regular classrooms without preparing teachers properly. IH-5 stated:

> As long as teachers are not trained adequately about inclusive education, it would be unethical to bring children with diverse needs in the mainstream education.

Some also identified that a lack of sufficient training for the teacher educators was also a challenge in implementing inclusive education philosophies properly in the pre-service teacher education programme. IH-15 mentioned:

> Our master trainers need long-term training on inclusive education so that their knowledge level widens regarding the issue.

Motivation towards teacher education course

> Student-teachers do not have much motivation to practise or learn about inclusive practices. They just want to pass the examination. (IH-10)

In addition, IH-1 was concerned about the negative attitudes of teacher educators towards children with disabilities as that would have an effect on their teaching approaches in preparing pre-service teachers. IH-1 said:

> I think we the teacher trainers also see students with special needs in a different way. This attitude has to be changed, we should be friendly.

Poor salary structure was a concern of some participants and was identified as a cause of lower motivation of teachers to teach in the inclusive classroom properly. IH-11 mentioned,

> Teachers have to be dedicated to their profession. Many teachers get involved in various activities other than teaching after recruitment. This is because of the poor salary structure of teachers.

Course length, class size and resource

Some participants believed that the existing shorter (one year) length of teacher preparation courses for both primary and secondary level pre-service teacher education was a challenge to addressing issues of inclusive education through this education programme. Large class size (about or more than 200 per class) in the pre-service teacher education programmes was also believed to be a challenge by two interviewees. Not having enough library resources related to inclusive education was a concern by a majority of the participants.

In summary, most participants had doubts about the effectiveness of the existing academic programmes in the pre-service teacher preparation programmes in preparing teachers for inclusive classrooms.

Beliefs about the challenges in practicum areas

Practicum is considered to be a very important part of pre-service teacher preparation as it provides opportunity for a pre-service teacher to apply theory into practice. However, it was a major concern of the participants that practicum was given less importance by all stakeholders due to its shorter length, lack of resources and excessive workload of teacher educators. Themes that emerged relating to the challenges in practicum areas included the quality of the experience during practicum, a lack of coordination between the school and teacher preparation institutions, and the balance between theory and practice.

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Experience during practicum

Institutional heads from both primary and secondary level teacher preparation institutions were not satisfied with the existing quality and length of practicum programmes. Besides, they believed that insufficient supervision of practicum by the teacher educators due to overload was also hampering the quality of the practicum programme. A response from one of the participants captures this idea well.

> I do not think that pre-service teachers get any experience of dealing with children with diverse needs during practicum classes. Because, children who are left behind in Bangladesh, generally do not get access to education. (IH-13)

Such comments were echoed by many other participants. They expressed that the presence of children with diverse learning needs was not yet confirmed even in the experimental schools of the teacher preparation institutions. Most participants believed that not having any or sufficient experience of learning in a diverse classroom during practicum was a major barrier in preparing pre-service teachers.

Lack of coordination between school and teacher preparation institutions

Two participants identified non-cooperation of schools about implementing new ideas for meeting diverse learning needs as one of the practicum-related challenges. IH-21 mentioned that the distance of schools from the teacher preparation institutions and lack of funds for the practicum supervisors to travel is a major barrier. It leads to supervisors not visiting and thus properly monitoring practice classes and providing feedback. The quality of practicum supervision was also questioned:

> Still in Bangladesh, we give extra emphasis on the theoretical training of the teachers rather than practice. Whatever the practicum is going on, that is not properly supervised. (IH-22)

Balance between theory and practice

A number of participants from both primary and secondary level teacher preparation institutions believed that the existing pre-service teacher education programmes seemed to be more theory-oriented and less practice-oriented, which was a challenge in preparing teachers adequately for real classrooms. As mentioned before, some other participants considered that pre-service teachers' negative attitudes towards teacher preparation programmes might be a challenge in preparing them for inclusive education through the practicum.

It is apparent in the beliefs about the practicum-related challenges that practicum activities are neither sufficient in preparing teachers properly nor running properly.

Beliefs about the challenges for beginning teachers

A beginning teacher's challenges to implementing inclusive education are an indication of how well they were prepared through pre-service teacher education. Interviewees mentioned inadequate preparation during pre-service programme, non-cooperation of schools, large class size and administrative barriers as challenges for beginning teachers to be more concerned about inclusive classrooms.

Five participants expressed that having little or no knowledge and experience of inclusive education in the pre-service teacher education programmes would create a challenge for a new teacher to adjust in a diverse classroom:

> I think that if teachers are prepared through the existing curriculum and if it is not being revised, beginning teachers would face challenge to deal with diverse children. (IH-14)

Participants were also concerned about other challenges for a beginning teacher, such as non-cooperation of school authorities to practising inclusion, poor self-motivation to bring change, lack of resources and large class size. The following statement indicates such a belief about one major challenge:

> In Bangladesh, both primary and secondary classrooms are densely populated. Student-teacher ratio is on an average 67:01. In such situation, it is not possible for a teacher to adjust with children with special needs. (IH-7)

IH-16 was also concerned that conflict between the new teacher and the government education administrative officers could pose a major challenge for a new teacher to implement inclusive educational concepts as those officers normally do not have education-related degrees, and as a result do not understand pedagogical aspects while supervising:

> If I do not have the degree of a medical practitioner I would not be able to prescribe a patient even if I have a PhD degree. Just like that the Thana Education Officers (TEOs) and Assistant TEOs (ATEOs) do not have B.Ed., M.Ed. or C-in-Ed degree but they are working as the supervisors. (IH-16)

Possible strategies to address challenges

Interviewees suggested various strategies to meet the challenges that they face in implementing inclusive education through improving pre-service teacher education in Bangladesh. The strategies suggested included curriculum reform, contextualization of teaching-learning, improved practicum opportunities and proper training of education-administrators.

Curriculum reform

Most respondents noted that the existing pre-service teacher education curricula did not have enough information about how to teach different subject contents in reality. Therefore, a number of participants suggested a strategy to include "linkage between content knowledge and pedagogy" as it was mostly absent in the current curriculum. Also, some participants suggested introducing a variety of activity-based teaching-learning to address diversity. IH-2 suggested the addition of inclusive education-related information in the curriculum and IH-18 suggested including child-focused approaches and child psychology in the curriculum. On the other hand, IH-19 suggested putting additional emphasis on implementation strategies rather than theories.

> Revision of teacher education programme is a must. C-in-Ed is now applied at present for the teacher education programme in primary sector. This is really a very weak programme... Some changes have been made in secondary sector but that is not sufficient yet... There must have a coordination of theory and practice as well and pre-service teachers should be sent to schools properly for transforming their knowledge into skills. (IH-22)

Like IH-22, several other participants suggested revising the existing curricula designed for both primary and secondary level teacher preparation. IH-1 was concerned that the needs of children with special needs were not properly addressed in the existing pre-service teacher preparation programmes and suggested revising the existing teacher training programmes:

> Teachers need to be trained up adequately on using special strategies to address all children's needs. So, I think the entire teacher's training programmes of Bangladesh should give emphasis on the knowledge of teaching students with special needs properly. (IH-1)

Other curriculum reform suggestions from the participants included increasing the existing pre-service teacher education course length, ensuring usage of technology in education and revising existing memorization-based assessment system.

Contextualization of teaching-learning

The centrally controlled and rigid education system was identified as a challenge for implementing inclusive education by the teachers. To address needs of diverse learners, one suggestion was to provide pre-service teachers freedom and authority to apply context-oriented teaching-learning approaches:

> Teachers have to be empowered. Only a teacher knows better the socio-economic and cultural environment of a school, where the students exist. So, it is you (the teacher) who have to identify which strategies to use for effective teaching-learning by understanding their situation. If I (Institutional head) prescribe a method as a trainer that may not be applicable or suitable in real situation. (IH-1)

Improved practicum opportunities

A number of participants suggested that added emphasis be put on the practicum rather than the theoretical part so that pre-service teachers get further opportunity to teach students with diverse abilities in inclusive settings. IH-10 expressed:

> It has been mentioned in the curriculum that 60 days long practicum programme have to be followed. But in reality even 30 days not even engaged … the practicum length has to be increased.

Whereas some participants expected supplementary supervision and monitoring from the teacher educators to ensure the quality of the practicum, the interview findings indicated that PTI teacher educators seemed to be overloaded due to managing two batches at a time and also not having enough PTI instructors recruited in those institutions. Thus, they could not visit schools properly during the practicum. Therefore, recruitment of additional teacher educators was one of the suggestions by the participants. IH-1 and IH-20 also proposed that some awareness-raising activities be conducted in the practicum schools to ensure their cooperation.

Training of education-administrators

While interviewing heads of the TTCs, they confessed that they were transferred to these institutions as Principals from government colleges where subject-teachers did not need any education-related degree. So they did not have any idea of teacher education and pedagogy before taking the administrative position in those institutions. This issue was also mentioned by some other university deans as a challenge and they suggested revising the recruitment policies in those institutions:

> Teacher trainers do not have a good background. For example it can be seen that the principals of NAPE, NAEM [National Academy for Educational Management] and even TTCs are not trained on education related topics.... NAPE is responsible for the preparation of PTI instructors. If their trainers do not have the relevant educational background then what would they teach to the PTI instructors. (IH-22)

Resource support

The participants suggested a wide range of resource support strategies. Eight participants suggested increasing library resources related to inclusive education. Other suggestions included awareness-raising programmes on inclusive education, ensuring accessibility facilities in schools, ensuring assistive device support to schools, increasing community motivation for inclusion, ensuring additional teacher and expert support, enhancing political will of the local government for inclusive education, ensuring peer-acceptance among students, building up international collaboration, developing links between regular and

special education and in pre-service and in-service teacher education programmes. Such resource challenges were reported in other studies as well, which will be discussed later.

Discussion

Analysis of respondents' opinions on inclusive education reflected their beliefs and concerns about it. The analysis revealed that while a majority had positive attitudes towards inclusive education, they were also concerned about a number of issues regarding the preparation of pre-service teachers. However, whether they really believe in the values of inclusive education or just uttered the recent policy reforms requires further research. One way of exploring their beliefs could be through observing their actions within the teacher preparation institutions. Such mixed beliefs at the initial stage of implementation of inclusive education were reported in the Indian context as well (Singal, 2005). Most participants believed that inclusive education means to include children with disabilities in regular schools. They expressed concerns about including children with severe disabilities in regular schools. Such a finding is not unusual as prior studies also reported educators facing similar concerns, discomfort and lack of confidence in including children with special needs in their programmes (C. Forlin et al., 2009; Sato & Hodge, 2009). Overall, institutional heads had negative and less confident views towards including children with disabilities, and this was supported by other Bangladeshi studies (Ahsan, 2006; Anam & Ahsan, 2002; DPE & CSID, 2002). Some comments about including children with disabilities in the regular education also indicated that those participants believed in the "medical model" of disability and wanted to see these children as normal as others (Loreman, Deppeler, & Harvey, 2005). Further research is required to reveal other factors that influence institutional leaders' beliefs about and attitudes towards inclusion. According to Fullan (1982), change takes place through teachers' beliefs, thoughts and actions. Therefore, it is a concern that such negative attitudes of leaders in teacher preparation institutions in Bangladesh could act as a major barrier in bringing about changes with regard to inclusion.

One of the many challenges identified by the interviewees was that the existing pre-service teacher education curriculum was not yet fully ready to address diversity and inclusion. Such a developmental phase is not unusual for a country that is very new to inclusive education reforms, as similar responses were found in Cyprus (Angelides et al., 2006) and India (Sharma & Deppeler, 2005). In addition, studies on pre-service teacher preparation in Australia (Premier & Miller, 2010) and in the Netherlands (Pijl, 2010) also found that the course content was not sufficient to address multicultural classroom needs. A positive finding of the current study was that the curriculum reform strategies suggested by the participants, such as linking content knowledge and pedagogy, using context-based teaching-learning approaches, introducing a variety of activity based teaching-learning, adding inclusive education-related information in the curriculum, and practising child-focused approaches, are very appropriate in the global context. These ideas are consistent with constructivist teaching-learning approaches (Fosnot, 1996; Steffe & Gale, 1995). Vygotsky's social constructivist teaching-learning approaches are considered inclusion-friendly (Daniels, 2009). Extensive literature (Booth, Nes, & Strømstad, 2003; Campbell & Fyfe, 1995; Jangira, 1995) emphasizes redesigning and reforming teacher education curricula to meet the challenges of inclusive education. Curriculum reform was a key strategy suggested by the respondents for implementing inclusive education. At the same time, it is an issue of concern that some interviewees demanded the addition of separate chapters on inclusive education issues, which indicates that they consider inclusive

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education as a prescriptive construct rather than a general norm to be embedded in different areas of the curriculum. Such conceptual confusion has to be overcome in order to implement inclusive education effectively in Bangladesh.

Along with teacher preparation curriculum and practicum-related issues, the respondents were also concerned about the challenge faced by beginning teachers in implementing inclusive education in schools. The major concern was that teachers were not appropriately prepared to deal with real-life diverse classroom situations. These findings indicate a significant gap in the theory covered in the pre-service teacher preparation programmes, as well as practicum facilities provided for the pre-service teachers and in real-life classroom situations. Such gaps in academic learning, practicum and teaching experiences were also experienced in the higher education institutions of Malta (Bartolo, 2010). This is a critical finding that requires serious attention for further research to minimize the gaps as well as for policymakers to address the issue properly through revision of policies.

A major concern that emerged was that the model schools (where best teaching practices should be used), located in close proximity to universities or teacher training institutes, were not diversity-focused in a majority of cases. Absence of experience in a diverse classroom during teaching placement remains a major challenge. This finding is similar to research conducted in Cyprus (Angelides et al., 2006) and Hong Kong (C. Forlin, 2010) which also reported limited experience of inclusive classrooms during practicum. In addition, the importance of having real-life experiences and collaborative initiatives for better preparation of teachers was supported by other studies (Angelides, 2008; Burstein, Kretschmer, Smith, & Gudoski, 1999; Campbell & Fyfe, 1995; Moran, 2009). Hanline's (2010) study also reported the positive effect of placement of pre-service teachers in inclusive settings. Subban and Sharma's (2006) study found that teachers who had previous experience with children with special needs and some prior training in dealing with an inclusive classroom had more positive attitudes and fewer concerns towards inclusive education. An enriched long-term and revised practicum facility is one of the resilient strategies suggested by the participants.

A distinctive finding of this study was that most secondary level TTC heads did not have any education-related degree, which acted as a barrier for them in understanding the concept of inclusive education; they were also less informed than the primary level heads. Another important finding of this study was that the government education officers and academic supervisors did not have any education-related degree or training, though they were responsible for supervising teachers in schools. This also led to some administrative barriers in implementing inclusive educational practices in Bangladesh. In addition, distance from schools and not having any funds to travel emerged as another hidden barrier for teacher educators to providing feedback to pre-service teachers during practicum.

An interesting observation was that the participants could articulate their beliefs and concerns about the challenges and strategies in implementing inclusive education through pre-service teacher education programmes, but they were not doing enough as leaders to apply those strategies to minimize the challenges. The participants' responses revealed that they actually did not have authority to provide their opinions or share their ideas and experiences in policy-making, during curriculum revision or when implementing curriculum components to suit the local needs as most of these activities were prescribed and designed by the policymakers in Bangladesh. Therefore, it is one of the recommendations of this study that administrative heads be more involved in any decisions regarding teacher education reforms to ensure change initiatives are successfully implemented. Similar to this study, a South African study (Prinsloo, 2001) also reported that having a sound teacher preparation programme and empowering teachers to practise

inclusive education were key strategies that brought success in facing challenges in educational reforms towards inclusion.

Other beliefs and concerns about challenges and strategies suggested by the respondents broadly reflect those reported in other studies. Lack of funding and resources seem to be very common and a global phenomenon as such challenge was identified in studies conducted in the US (Harvey et al., 2010), India (C. Forlin, Loreman, Sharma, & Earle, 2009) and Hong Kong (Chong et al., 2007).The relatively shorter length of the teacher preparation programme was also reported as a challenge by the respondents of this study as well as other studies (Chai et al., 2009; Chong et al., 2007).The importance of peer acceptance of diverse classrooms mentioned by one participant was also stated by C. Forlin and Chambers (2003) in a study about bullying in inclusive schools. Several Bangladeshi studies (Ahsan, 2005, 2006; Anam & Ahsan, 2002; Ahsan & Burnip, 2007; DPE & CSID, 2002; USAID Bangladesh, 2005) also showed that an inaccessible environment, lack of proper training of teachers, lack of resources and materials, lack of confidence and negative attitudes by teachers and school staffs, gender discrimination, prejudice, rigid teaching-learning and assessment systems were some common barriers to including children with diverse needs in regular education in Bangladesh.

Conclusion

Beliefs and concerns about challenges identified by the higher education institutional heads seem similar to those reported in other studies. Despite significant variability in socio-politico and economic factors across countries, the challenges faced by the higher education sector are to a large extent similar. This suggests that perhaps the strategies suggested by the participants in this study will not be useful for this sector in Bangladesh but in other countries.

Nobel laureate in Bangla literature Rabindranath Tagore (1861–1941) expressed his concern about the necessity of the philosophy of inclusion to address diversity in the year 1911. Nevertheless, this journey towards an inclusive society is still going on, though Tagore felt its necessity about a century ago. Changing teachers through teacher preparation programmes can contribute to changing schools as well as society in the long run. However, despite different challenges, this study would help Bangladesh to rethink policy issues as it continues in the journey towards educational change through inclusive education.

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CHAPTER 7

Discussion and Conclusion

Introduction

> It is not beyond our power to create a world in which all children have access
> to a good education. Those who do not believe in this have small
> imaginations—Nelson Mandela (Mandela, 2007, p. 1).

This chapter presents a critical discussion based on the major findings that emerged from the current study with an aim of understanding their contributions in the area of IE. In addition, the chapter reflects on potential directions for future research based on the limitations of the study. Several policy and practical implications emerged from this study. These implications are presented under three themes: 1) Importance of the period of pre-service teacher education for better preparedness for IE; 2) Scope of reforming the pre-service teacher education curriculum for IE; and 3) Influences of socio-cultural and contextual factors in the preparation of pre-service teachers for IE.

Importance of the Period of Pre-service Teacher Education for Better Preparedness for IE

The findings derived from the surveys using the SACIE and TEIP scales indicated that pre-service teachers in Bangladesh possess moderately positive attitudes towards, and high level of perceived teaching-efficacy for, IE and that they were not very concerned about teaching in IE classrooms. Statistically significant positive

correlations were found between attitudes and teaching-efficacy scores. On the other hand, statistically significant negative correlations were found in concern scores for both attitudes and teaching-efficacy scores. This implies that pre-service teachers who had a high level of teaching-efficacy, showed less concern and positive attitudes towards IE. This finding is consistent with the findings of the studies conducted by many other researchers (e.g. Hofman & Kilimo, 2014; Kim, 2006; Loreman et al., 2005; Savolainen et al., 2011; Sharma et al., 2006; Weisel & Dror, 2006), from which it can be concluded that pre-service teachers' teaching-efficacy was the single most important factor that affected their attitudes towards IE. In addition, those studies revealed that pre-service teachers' attitudes, perceived teaching-efficacy, and concerns scores were correlated with each other. It appears that, as pre-service teachers become more positive towards IE, their level of teaching-efficacy increases and their concerns decline. This finding points to an important policy suggestion that, if the concerns of pre-service teachers about IE are identified when they are attending pre-service teacher education courses, efforts could be made to minimise concerns during the period of training, which may stimulate pre-service teachers' positive attitudes and increase their teaching-efficacy for IE before they are sent to actual, inclusive, classroom settings.

Scope of Reforming Pre-service Teacher Education Curriculum for IE

Implications for the reform of pre-service teacher education curriculum in Bangladesh arise from the findings. First, the attitude mean score of specific items in the SACIE scale indicated that pre-service teachers showed positive attitudes to including children who required support in verbal expression and to providing attention to children who failed in examinations. But, they were, also, found to have less

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favourable attitudes towards including children who require individualised academic programs and the support of communicative technologies, such as Braille and Sign Language. This result is consistent with other studies conducted in USA (Gao & Mager, 2011), Mexico (Forlin et al., 2010) and in Ghana (Agbenyega, 2007), which reported that pre-service teachers were less positive and more concerned about including children with disabilities who required support in sensory and behaviour management issues. This implies that pre-service teacher education curriculum in Bangladesh should provide greater emphasis on Braille, Sign Language and behaviour management techniques to enhance pre-service teachers' attitudes towards IE.

Second, teaching-efficacy scale mean scores indicated that pre-service teachers appeared to have higher teaching-efficacy in managing behaviour in inclusive classrooms, followed by a high level of teaching-efficacy in using inclusive instructions. The lowest level of teaching-efficacy was in collaborating with others. The interview findings from the institutional heads and the National Education Policy 2010 (MOE, 2010) supported this, reporting that pre-service teacher education curriculum in Bangladesh was very traditional, based on rote-learning and offered limited scope for interaction among the students and teachers. An implication of this finding for the pre-service curriculum in Bangladesh would be providing increased opportunities for collaboration among students in the pre-service programs with each other and with accomplished IE teachers.

Third, pre-service teachers who participated in this study were found to have high levels of concern about increased workload and were, also, most concerned about providing appropriate attention to all children in a diverse classroom. IHs

interviewed in this study, also, expressed their concerns that pre-service teachers might have challenges in meeting diverse learning needs in the same classroom. Therefore, the pre-service teacher education curriculum might need to include strategies for mobilising and making better use of resources to minimise teachers' workloads. Most importantly, curriculum regarding effective inclusive pedagogy is needed to minimise their concerns.

Fourth, the findings indicated that significant interaction with people with disabilities was a predictor of a high level of teaching-efficacy and low degrees of concern and, as the level of experience in teaching students with disability increased among pre-service teachers, their level of concern decreased. It is clear that positive results in ensuring better preparedness of pre-service teacher for IE may be gained by increasing their experience in teaching children with disabilities while they are enrolled in the program. The lack of opportunity to gain inclusive classroom experience and practice during pre-service teacher education was identified as a major concern by the IHs who participated in this study.

Finally, knowledge about legislation and policy related to disability and IE was found to be a significant predictor of teaching-efficacy of pre-service teachers and, as knowledge increased, pre-service teachers showed higher teaching-efficacy towards IE. This finding is consistent with previous research (Brown, Welsh, Hill & Cipko, 2008; Sharma et al., 2007) and implies that incorporating legislation and policy relevant to IE in the pre-service teacher education curriculum is likely to contribute to better preparedness of pre-service teachers for IE.

The need for reform of the pre-service teacher education curriculum in relation to IE issues was viewed as highly important by the IHs interviewed in this study. IHs described the existing curriculum as teacher-centred and theory-based. IHs acknowledged that the curriculum had not been revised for a long time and the need to revise it was of high priority. In particular, IHs recognised that IE was not addressed sufficiently, teacher educators were inadequately prepared and practicum experiences were deficient. IHs suggested that specific subject, curricular pedagogy be linked with inclusive pedagogy and context-based practicum experiences. In addition, a need of embedding IE issues in appropriate sections of the whole curriculum was a recommendation by the participants. When considering reform of the pre-service teacher education curriculum, it could be argued, any changes should build upon the research findings based on the Bangladesh context rather than simply importing approaches from elsewhere.

Influences of Socio-cultural and Contextual Factors in Preparation of Pre-service Teachers for IE

Interventions taken under the umbrella of IE have been mostly conducted in Western countries (Alur, 2001; Eleweke & Rodda, 2002; Johnston & Chapman, 2009; Miles, 1997). Following success in these contexts, the same ideas were applied in Eastern regions (Sharma et al., 2013). This has led the practitioners, as well as the policy makers, to, sometimes; disregard the influence of socio-cultural factors in the programs. Ignorance of the contextual factors may contribute to a lessening of the success rate of IE programs in developing countries (Ainscow et al., 2006, Forlin, 2013; Sharma, 2011). Hence, it is important to design IE programs based on specific socio-cultural contextual factors. This study has identified several contextual factors that may have impact on pre-service teachers' preparedness for IE in Bangladesh.

One unique, context-based finding of this study was that secondary level, pre-service teachers showed more positive attitudes and higher teaching-efficacy for IE than their primary level counterparts. It appears that this finding is in sharp contrast with past studies, which reported that primary level, pre-service teachers had higher level of teaching-efficacy (Baker, 2005; Forlin et al., 2010; Woodcock, 2011) and more positive attitudes (Forlin et al. 2010; Woodcock 2011) than their secondary counterparts. Further investigation to uncover the reason behind this conflicting result, by interviewing the IHs, revealed several contextual issues. For example, the IHs reported that possible reasons behind the secondary level, pre-service teachers being better prepared may include reformed, IE-focused B.Ed. curriculum, Government's extra resource allocation at the secondary level for IE and pre-service teachers', as well as teacher educators', often higher educational backgrounds at the secondary level. These identified factors need to be considered if Bangladesh is to better prepare its primary level pre-service teachers.

Another distinct finding of this study was that pre-service teachers enrolled in 4-year courses showed lower levels of teaching-efficacy than those who were in 1-year courses. This finding was in contrast to the popular belief that a longer teacher education program is more effective for developing higher teaching-efficacy for IE among pre-service teachers than a shorter program (Carroll et al., 2003; Rademacher et al., 1998; Theaker, 2008). Interviews with the IHs revealed some potential explanations of this contrasting result. The IHs suggested that several contextual factors, including providing more information in the curriculum about IE, Government's various motivational initiatives (e.g. orientation workshop, leaflets on

IE), pre-service teachers' previous teaching experiences, higher educational qualifications, their motivation to the profession and seniority (age) could have contributed to higher levels of teaching-efficacy among pre-service teachers who were enrolled in 1-year teacher education program than those who were in a 4-year program. In light of this finding, it could be argued that what is taught in the pre-service teacher education program is more important than increasing the length of the program. Further to this argument, there are studies (Angelides, Stylianou & Gibbs, 2006; Cook, 2002; Forlin et al., 2010) which revealed that attending an IE-focused pre-service teacher education course does not guarantee that the course would contribute to developing positive values and beliefs for IE. Instead, those studies suggested that curriculum content, practicum opportunities and experience with children with disabilities all contribute to pre-service teachers' better preparation for IE. Hence, it appears that the rare finding related to the length of the pre-service teacher education course might provide a useful insight towards improving the quality of teacher training programs and, also, might have important policy implications for further improvement of the IE component of 4-year pre-service teacher education programs in Bangladesh.

Another interesting, context-specific finding of this study was that female pre-service teachers who participated in the surveys showed more positive attitudes, but lower teaching-efficacy, for IE than their male counterparts. Consistent with this finding, other research studies (Loreman et al., 2005; Romi & Leyser, 2006; Woodcock, 2008) indicated that female pre-service teachers possess more positive attitudes towards IE than males. However, having lower teaching-efficacy among female than male pre-service teachers was inconsistent with previous studies (Erdem

& Demirel, 2007; Forlin et al., 2010; Romi & Leyser, 2006; Woodcock, 2008; Gao & Mager, 2011). IHs proposed that such results regarding gender may be related to some socio-cultural contextual issues existing in South Asian societies. Their opinions were that female pre-service teachers in Bangladesh showed positive attitudes for two possible reasons. Firstly, females' maternal instincts contribute to their willingness to accept IE. Secondly, the concept of IE itself is attractive to women as this parallels the social justice requirement of gender equity. In response to the conflicting result, IHs argued that female pre-service teachers probably had a lower level of teaching-efficacy due to the negative effects of perceived gender-bias and discrimination in the Bangladeshi society that resulted in lower levels of confidence compared with men. This argument was supported by the findings of studies conducted on gender and equity in many South Asian countries (Acharya, 2007; Anam & Ahsan, 2002; Jayaweera & Gunawardena, 2007; Nasreen & Tate, 2007). A policy implication that can be drawn from this is if female teachers in Bangladesh were provided with increased access to teacher positions at schools they might feel more confident to teach in these schools.

Further analysis of the findings from interviews conducted with IHs to understand their beliefs about IE revealed several contextual challenges that may have policy implications for preparing pre-service teachers for IE in Bangladesh. The IHs, in common, believed that existing pre-service teacher education curriculum must be revised to ensure adequate readiness of pre-service teachers for IE. One concern raised by the IHs was the pre-existing personal beliefs and values of pre-service teachers that would be difficult to change. Nespor (1987) and Kagan (1992) confirmed, through their studies, that, despite gaining new knowledge in the training

programs, pre-service teachers tend to retain their pre-existing personal knowledge or beliefs. Fortunately, there are several empirical research studies regarding changing teachers' beliefs through training. For example, Pajares (1992) and Richardson (1996) recommended that trainee teachers should have the opportunity to experience new ideas during the program and Kagan (1992) added that teachers' preconceived beliefs have to be challenged during the teacher education programs if we are to change it. From the literature in relation to this barrier, important policy recommendations can be made.

The findings indicated that IHs were concerned about the level of confidence of teachers who are about to start their profession after completion of the pre-service teacher education program. Those concerns are because theory-based curriculum does not provide sufficient hands-on experience to trainee teachers and the non-cooperation of schools, large class sizes and administrative barriers presented as challenges for the beginning teachers. It can be argued that pre-service teachers in this study who possess moderately positive attitudes towards IE and high level of perceived teaching-efficacy for IE could express less positive attitudes if they faced such challenges as beginning teachers. In support of this argument, interestingly, a recent study conducted on in-service teachers' intentions towards IE found that they hold neither positive nor negative attitudes (scored close to neutral) towards IE (Ahmmed et al., 2012). However, further research could be done to understand the reasons behind differing levels of attitudes between pre and in-service teachers towards IE in Bangladesh.

Analysis of the IHs interview findings regarding their beliefs about IE revealed an atypical contextual challenge in Bangladesh. The study found that most secondary level IHs in TTCs did not have an education-related degree, nor did government education officers and academic supervisors have any education-related degree or training, even though they were responsible for supervising teachers in schools. This implies that they might not understand the concept of IE and would not be able to guide teachers adequately. This argument could be supported by the finding that most IHs had a confused or unclear understanding of IE, mostly dominated by defining it as 'enrolment of children with disabilities' into regular schools. This could be a major issue as, if the IHs of pre-service teacher education institutions do not have a clear understanding of IE, it may negatively affect the preparedness of pre-service teachers for IE. In regard to this finding, a recommendation can be made that policymakers and implementers ensure TTC heads are recruited from among those who have the relevant educational background and qualification as well as have a sound orientation towards IE.

A concluding recommendation can be made, based on another contextual challenge identified in this study. The study found that the IHs were not given scope to participate or share their thoughts and experiences in policy-making or curriculum reform processes. Input comes only from central-level policymakers in Bangladesh. This is a common feature of many developing countries (Singal, 2005). Therefore, a recommendation could be that IHs should be involved in the policy and curriculum reform processes regarding IE in Bangladesh to orient them more towards local needs. By involving IHs in the curriculum reform processes may create opportunity to utilise their leadership roles for implementing IE issues through their institutions. Besides, it

also can be anticipated that IHs may have deeper understanding regarding the strategies to minimise challenges in introducing IE through the teacher education programmes. Such experiences of IHs may contribute to the sustainability of the changes to be made in the teacher education curriculum for implementing IE.

The broad objective of this current, mixed-method design, dual-phase study was to understand the preparedness of pre-service teachers for IE in Bangladesh. The study found evidence regarding the importance of the duration of pre-service teacher education programs for building up positive attitudes, increasing teaching-efficacy and minimising concerns about IE. The study, further, identified statistically significant, important predictors that could impact on pre-service teachers' attitudes, teaching-efficacy and concerns about IE in Bangladesh. By understanding the nature of those determinant variables through critical analysis of the findings, specific recommendations were made in relation to curriculum and policy reform initiatives. Further to this, the study provided strong recommendations regarding several contextual factors derived from both survey and interview findings (gender, length of course, level of teaching, educational policy-making process etc.) to make pre-service teacher education programs result in more IE in Bangladesh. Based on the overall analysis of findings, it is anticipated that the study offers some contributions to policy and curriculum reform areas, in the context of Bangladesh as well as in the international literature.

Limitations of the Study

Individual published papers included in this study have reported the limitations relevant to the topic discussed. However, this section of the thesis would like to

reconsider those limitations so that they are taken into consideration while interpreting the findings of the study. Further to this, based on the constraints of the current study, some directions for future research could be indicated. One limitation of the study was that, data collected in this study from pre-service teachers could be considered as a snapshot of their preparation for IE (data was collected during their final semester/term). As it is known that teaching-efficacy is a construct, which predicts beliefs about teachers' future actions, the current study did not collect any data about the actual behaviour of the participants in real classroom situations. In connection to that, pre-service teachers self-reporting of their preparedness may not be an accurate reflection of what they would do in inclusive classrooms. Future studies could be designed to explore the longitudinal effect of teacher preparedness for IE in different stages of pre-service teachers' development by observing practices of these participants after they have entered into regular schools on completion of their degrees.

Another limitation of these findings was that the study did not interview the pre-service teachers themselves to learn their opinions of the Phase 1 findings. Therefore, additional studies would be required to understand pre-service teachers' own perspectives. Also, if IHs had not been informed about the Phase 1 findings, they may have expressed different opinions and raised different issues, in which case there is a possibility that the findings may have had different outcomes. Again, further research is required to confirm and build upon these findings.

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APPENDICES

Appendix 1: Human Ethics Certificate of Approval

MONASH University

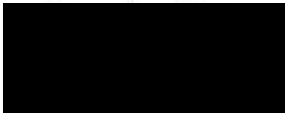Monash University Human Research Ethics Committee (MUHREC)
Research Office

Human Ethics Certificate of Approval

Date: 11 November 2009

Project Number: CF09/2470 - 2009001430

Project Title: Pre-service Teachers' preparedness for inclusive education in
                            Bangladesh

Chief Investigator: Dr Umesh Sharma

Approved: From: 11 November 2009   To: 11 November 2014

Terms of approval

1. The Chief investigator is responsible for ensuring that permission letters are obtained, if relevant, and a copy forwarded to MUHREC before any data collection can occur at the specified organisation. **Failure to provide permission letters to MUHREC before data collection commences is in breach of the National Statement on Ethical Conduct in Human Research and the Australian Code for the Responsible Conduct of Research.**
2. Approval is only valid whilst you hold a position at Monash University.
3. It is the responsibility of the Chief Investigator to ensure that all investigators are aware of the terms of approval and to ensure the project is conducted as approved by MUHREC.
4. You should notify MUHREC immediately of any serious or unexpected adverse effects on participants or unforeseen events affecting the ethical acceptability of the project.
5. The Explanatory Statement must be on Monash University letterhead and the Monash University complaints clause must contain your project number.
6. **Amendments to the approved project (including changes in personnel):** Requires the submission of a Request for Amendment form to MUHREC and must not begin without written approval from MUHREC. Substantial variations may require a new application.
7. **Future correspondence:** Please quote the project number and project title above in any further correspondence.
8. **Annual reports:** Continued approval of this project is dependent on the submission of an Annual Report. This is determined by the date of your letter of approval.
9. **Final report:** A Final Report should be provided at the conclusion of the project. MUHREC should be notified if the project is discontinued before the expected date of completion.
10. **Monitoring:** Projects may be subject to an audit or any other form of monitoring by MUHREC at any time.
11. **Retention and storage of data:** The Chief Investigator is responsible for the storage and retention of original data pertaining to a project for a minimum period of five years.

Professor Ben Canny
Chair, MUHREC

cc: Assoc Prof Joanne Deppeler; Mr Mohammad Tariq Ahsan

Postal – Monash University, Vic 3800, Australia
Building 3E, Room 111, Clayton Campus, Wellington Road, Clayton
                          www.monash.edu/research/ethics/human/index/html
                          #00008C

Appendix 2: Permission Letter from the DPE

মহাপরিচালক
প্রাথমিক শিক্ষা অধিদপ্তর
সেকশন ২, মিরপুর, ঢাকা-১২১৬
ফোন: ৮০৫৭৮৭৭ ফ্যাক্স: ৮০১৬৪৯৯
Web: www.dpe.gov.bd

Permission Letter

Re: 'Pre-service teachers' preparedness for inclusive education in Bangladesh.**

..........১২........ November 2009

Dr. Umesh Sharma	Associate Professor Joanne M Deppeler	Mr. Mohammad Tariq Ahsan
Senior Lecture	PhD, MAPs	Faculty of education
Faculty of education	Faculty of education	MONASH UNIVERSITY
MONASH	MONASH UNIVERSITY	Clayton, Victoria 3800
UNIVERSITY	Clayton, Victoria 3800	
Clayton, Victoria 3800		

Dear Dr. Sharma, Dr. Deppeler & Mr. Ahsan,

Thank you for your request to recruit participants from the Primary Teachers Training Institutes (PTIs) under the Directorate of Primary Education of Bangladesh for the above-named research.

I have read and understood the Explanatory Statement regarding the research (Project Number; CF09/2470-2009001430) titled "Pre-service teachers' preparedness for inclusive education in Bangladesh" and hereby nominate 06 PTIs and give permission for this research to be conducted on the final term student teachers in the Certificate in Education (C-in-Ed) course offered by the following Primary Teachers' Training Institutes (PTIs) situated in the six divisional towns (gazipur in Dhaka, Chittagong, Rajshahi, Sylhet, Barisal & Khulna).

Yours Sincerely,

Di

Directorate of Primary Education (DPE)
Ministry of Primary and Mass Education (MOPME)
Bangladesh.

Appendix 3: Permission Letter from the DSHE

DIRECTOR GENERAL
DIRECTORATE OF SECONDARY AND HIGHER EDUCATION
SHIKKHA BHABAN, ABDUL GANI ROAD,
BANGLADESH, DHAKA.

D.O. No. 1T-21/TM-08/10268   Dated, the 14-12-2009

Permission Letter for the research titled "Pre-service teachers' preparedness for inclusive education in Bangladesh"

Dr. Umesh Sharma
Senior Lecturer,
Faculty of Education,
Monash University,
Clayton, Victoria 3800

Associate Professor Joanne M Deppeler
PhD, MAPs
Faculty of Education,
Monash University,
Clayton Victoria 3800

Mr. Mohammad Tariq Ahsan
PhD Researcher
Faculty of Education,
Monash University,
Clayton, Victoria 3800

Dear Dr. Sharma, Dr. Deppeler and Mr. Ahsan,

Thank you for your request to recruit participants from the Teachers' Training Colleges (TTCs) under the Directorate of Secondary and Higher Education (DSHE) of the Government of Bangladesh for the above-named research.

I have read and understood the Explanatory Statement regarding the research (Project Number: **CF09/2470 - 2009001430**) titled "Pre-service teachers' preparedness for inclusive education in Bangladesh" and hereby nominate 06 TTCs and give permission for this research to be conducted on the final term student teachers in the Bachelor of Education (B.Ed) course offered by the following Teachers' Training Colleges (TTCs) situated in the six divisional towns (Dhaka, Rajshahi, Chittagong, Sylhet, Barisal & Khulna).

Yours Sincerely,
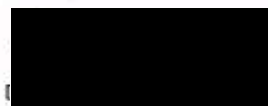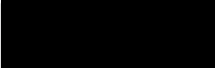
Directorate of Secondary and Higher Education (DSHE),
Ministry of Education (MOE); Govt. of the People's Republic of Bangladesh

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Appendix 4: Permission Letter from the Institute of Education and Research (IER), University of Dhaka

INSTITUTE OF EDUCATION & RESEARCH
UNIVERSITY OF DHAKA
DHAKA-1000, BANGLADESH

PHONE :

Office of the Director

Permission Letter for the research titled "Pre-service teachers' preparedness for inclusive education in Bangladesh"

07 November 2009

Dr. Umesh Sharma
Senior Lecturer,
Faculty of Education,
Monash University,
Clayton, Victoria 3800

Associate Professor Joanne M Deppeler
PhD, MAPs
Faculty of Education,
Monash University,
Clayton Victoria 3800

Mr. Mohammad Tariq Ahsan
PhD Researcher
Faculty of Education,
Monash University,
Clayton, Victoria 3800

Dear Dr. Sharma, Dr. Deppeler and Mr. Ahsan,

Thank you for your request to recruit participants from the Institute of Education and Research (IER) at the University of Dhaka for the above-named research.

I have read and understood the Explanatory Statement regarding the research (MUHREC: LR application – 2009001430) titled "Pre-service teachers' preparedness for inclusive education in Bangladesh" and hereby give permission for this research to be conducted on the final year Bachelor of Education (Hons) students of the Institute of Education and Research (IER), University of Dhaka.

Yours Sincerely,

Director
Institute of Education and Research (IER)
University of Dhaka, Dhaka-1000, Bangladesh

Director
Institute of Education and Research
University of Dhaka

Appendix 5: Permission Letter from Uttara University

UTTARA UNIVERSITY

House - 4, Road - 15, Sector - 6, Uttara Model Town, Uttara, Dhaka 1230

web: www.uttarauniversity.com

Ref: Date:

Permission Letter for the research titled "Pre-service teachers' preparedness for inclusive education in Bangladesh"

04.02.10.........February 2010

Dr. Umesh Sharma
Senior Lecturer,
Faculty of Education,
Monash University,
Clayton, Victoria 3800

Associate Professor Joanne M Deppeler
PhD, MAPs
Faculty of Education,
Monash University,
Clayton Victoria 3800

Mr. Mohammad Tariq Ahsan
PhD Researcher
Faculty of Education,
Monash University,
Clayton, Victoria 3800

Dear Dr. Sharma, Dr. Deppeler and Mr. Ahsan,

Thank you for your request to recruit participants from the Department of Education at the Uttara University for the above-named research.

I have read and understood the Explanatory Statement regarding the research (Project Number: CF09/2470 - 2009001430) titled "Pre-service teachers' preparedness for inclusive education in Bangladesh" and hereby give permission for this research to be conducted on the final year Bachelor of Education (Hons) students of the Department of Education, Uttara University

Yours Sincerely,

Chairman
Department of Education,
Uttara University, Dhaka, Bangladesh.

Appendix 6: Permission Letter from Darul Ihsan University

INSTITUTE OF EDUCATION
DARUL IHSAN UNIVERSITY
(An Abode of Excellence)

Permission Letter for the research titled "Pre-service teachers' preparedness for inclusive education in Bangladesh"

15 November 2009

Dr. Umesh Sharma
Senior Lecturer,
Faculty of Education,
Monash University,
Clayton, Victoria 3800

Associate Professor Joanne M Deppeler
PhD, MAPs
Faculty of Education,
Monash University,
Clayton Victoria 3800

Mr. Mohammad Tariq Ahsan
PhD Researcher
Faculty of Education,
Monash University,
Clayton, Victoria 3800

Dear Dr. Sharma, Dr. Deppeler and Mr. Ahsan,

Thank you for your request to recruit participants from the Institute of Education at the Darul Ihsan University for the above-named research.

I have read and understood the Explanatory Statement regarding the research (Project Number: CF09/2470 - 2009001430) titled "Pre-service teachers' preparedness for inclusive education in Bangladesh" and hereby give permission for this research to be conducted on the final year Bachelor of Education (Hons) students of the Institute of Education, Darul Ihsan University

Yours Sincerely,

Professor Abdul Gani Sharker
Director, Institute of Education,
Darul Ihsan University, Dhaka, Bangladesh.

Administration Office: House # 21, Road # 9/A, Dhanmondi R/A, Dhaka 1209
Website: www.diu.edu

MONASH University

<u>**Explanatory Statement for Deans/ Department Heads**</u>

Date:

Title: Pre-service teachers' preparedness for inclusive education in Bangladesh

The above titled research is a part of the researcher's (Mohammad Tariq Ahsan) Doctor of Philosophy program at the Faculty of Education in Monash University, Australia. This research project aims to understand pre-service teachers' preparedness for inclusive education in Bangladesh. This research is under the supervision of Dr. Umesh Sharma, Senior Lecturer, Monash University and Associate Professor Joanne Deppeler, Monash University.

This study will investigate pre-service teacher preparedness for inclusive education in Bangladesh. To get a comprehensive understanding of the matter, opinions will be taken from the pre-service teachers and from the deans and the department heads of the higher education institutions that are offering pre-service teacher education in Bangladesh.

This proposed project has the potential to make a contribution to national benefits by providing new data on teacher preparation for inclusive education and provide some policy directions for pre-service teacher education curriculum reforms in Bangladesh. Besides, higher education institutions that are engaged in the teacher preparation initiatives in Bangladesh may get some reform ideas from the findings of this research.

Deans and the Department heads of the higher education institutions will be interviewed for this research. By giving consent, deans/heads will be agreeing to be interviewed for approximately one hour. The interview will be audio-taped and transcribed. Transcribed data will be provided to the participants to give approval before using it for the thesis write up purpose.

This research has the approval of the Monash University Human Research Ethics Committee (MUHREC) and confidentiality of all the records will be maintained. All the participants' identity will not be exposed in the data or in any published materials. Anonymity will be highly maintained and pseudonyms will be used if required. All data will be stored in a safe place where only the researcher has access. Participants

can withdraw themselves at any time from the study and any data collected from them will be destroyed upon their withdrawal.

If participants have any concerns or complain or require further explanations about the study, they can contact:

Executive Officer
Monash University Human Research Ethics Committee (MUHREC)
Building 3e Room 111; Research Office, Monash University VIC 3800
████████████████████   ████   █   ████   ████   ████
████████████████

Participant requiring any support regarding further information on the research or counselling supports in Bangladesh may contact the following person:

Professor Nazmul Haq
Chairman; Department of Educational Psychology and Guidance
Institute of Education and Research (IER); University of Dhaka, Dhaka 1000, Bangladesh
████████████████████████████████

For any further clarifications, or for summary of the research findings participants can contact the researcher [Mohammad Tariq Ahsan, ████ ████████████ (in Bangladesh) ██████████ █ █████████ ; e-mail: █████████████████████ and can also contact the supervisors, Dr. Umesh Sharma, Senior Lecturer, Monash University (████████████████████ ████ ████████████████████ and Dr. Joanne Deppeler, Associate Professor, Monash University ████████ █ ████ ████ ████ ████████████████

Upon agreeing to participate in the study, participants need to sign a consent form attached to this statement and return it to the researcher when he physically come to see them.

All participations are voluntary and any support of the participants in this research study is highly appreciated.

With Regards

Mohammad Tariq Ahsan
Doctoral Research Candidate
Faculty of Education, Monash University, Australia.

Appendix 8: A Sample of Consent Form

MONASH University

Deans/ Department Heads Consent Form

Title: Pre-service teachers' preparedness for inclusive education in Bangladesh

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

I agree to take part in the Monash University research project specified above. I have had the project explained to me, and I have read the Explanatory Statement, which I keep for my records. I understand that agreeing to take part means that:

1. I agree to be interviewed by the researcher
   ☐ Yes   ☐ No

2. I agree to allow the interview to be audio-taped and/or video-taped
   ☐ Yes   ☐ No

3. I agree to make myself available for a further interview if required
   ☐ Yes   ☐ No

I understand that I will be given a transcript of data concerning me for my approval before it is included in the write up of the research.

I understand that my participation is voluntary, that I can choose not to participate in part or all of the project, and that I can withdraw at any stage of the project without being penalised or disadvantaged in any way.

I understand that any data that the researcher extracts from the interview for use in reports or published findings will not, under any circumstances, contain names or identifying characteristics.

Participant's name

Signature
Date

Appendix 9: Questionnaire for Demographic Information

(Please ✓ on the line as appropriate)

A. I am teaching / training to teach in:

    1. Primary _____   2. Secondary _____

B. Length of the training program

    1. one-year _____   2. two-year _____

    3. four-year _____   4. Others, please specify _____

C. I am: 1. Male _____   2. Female _____

D. What is your age? _____ years

E. My teacher education course has components of inclusive/special education in the curriculum

    1. Yes_____   2. No _____

F. My highest level of education completed is:

1. Secondary School or its equivalent _____

2. Higher Secondary School or its equivalent_____

3. Bachelor's Degree or its equivalent_____

4. Master's Degree _____

5. Other, please specify_____

G. Previous teaching experience:

    1. None _____

    2. less than one-year _____

    3. 1-2 years _____

    4. 2-3 years _____

    5. 3-5 years _____

    6. More than 5 years _____

H. I have a documented disability: 1. Yes _____ 2. No_____

I. If yes, please check the disability that applies to you:

1. Blindness / Partial Sight / Low Vision _____

2. Deafness / Partial Deafness / Hard of Hearing _____

3. Physical Impairment _____

4. Other, please specify _____

J. I have had significant/considerable interactions/dealings with a person with a disability:

1. Yes _____   2.No _____

K. I have had significant/considerable experience in teaching a child with a disability?

1. Yes _____   2.No _____

L. I have had the following level of training on educating students with disabilities:

1. None _____   2. Some _____ 3. High (at least 40 class-hrs) _____

M. My knowledge of the local legislation or policy as it pertains to children with disabilities is:

1. None _____   2. Poor _____ 3. Average _____ 4. Good _____ 5. Very Good _____

N. My level of confidence in teaching students with disabilities is:

1. Very Low _____ 2. Low _____ 3. Average _____   4. High _____ 5. Very High _____

O. My level of experience teaching a student with a disability is:

1. Nil _____   2. Some _____ 3. High (at least 30 full days) _____

Appendix 10: Sentiments, Attitudes and Concerns about Inclusive Education (SACIE) Scale

Please circle the response which best applies to you

SD	D	A	SA
Strongly Disagree	Disagree	Agree	Strongly Agree

1	I am concerned that students with disabilities will not be accepted by the rest of the class.	SD D A SA
2	I dread the thought that I could eventually end up with a disability.	SD D A SA
3	Students who have difficulty expressing their thoughts verbally should be in regular classes.	SD D A SA
4	I am concerned that it will be difficult to give appropriate attention to all students in an inclusive classroom.	SD D A SA
5	I tend to make contacts with people with disabilities brief and I finish them as quickly as possible.	SD D A SA
6	Students who are inattentive should be in regular classes.	SD D A SA
7	I am concerned that my workload will increase if I have students with disabilities in my class.	SD D A SA
8	Students who require communicative technologies (for example Braille / sign language) should be in regular classes.	SD D A SA
9	I would feel terrible if I had a disability.	SD D A SA
10	I am concerned that I will be more stressed if I have students with disabilities in my class.	SD D A SA
11	I am afraid to look a person with a disability straight in the face.	SD D A SA

12	Students who frequently fail exams should be in regular classes.	SD	D	A	SA
13	I find it difficult to overcome my initial shock when meeting people with severe physical disabilities.	SD	D	A	SA
14	I am concerned that I do not have the knowledge and skills required to teach students with disabilities.	SD	D	A	SA
15	Students who need an individualized academic program should be in regular classes.	SD	D	A	SA

Appendix 11: Teacher Efficacy for Inclusive Practices (TEIP) Scale

This survey is designed to help us understand the nature of factors influencing the success of routine classroom activities in creating an inclusive classroom environment. Please circle the number that best represents your opinion about each of the statements. Please attempt to answer each question

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

		SD D DS AS A SA
1	I can use a variety of assessment strategies (for example, portfolio assessment, modified tests, performance-based assessment, etc.).	1 2 3 4 5 6
2	I am able to provide an alternate explanation or example when students are confused.	1 2 3 4 5 6
3	I am confident in designing learning tasks so that the individual needs of students with disabilities are accommodated.	1 2 3 4 5 6
4	I can accurately gauge student comprehension of what I have taught.	1 2 3 4 5 6
5	I can provide appropriate challenges for very capable students.	1 2 3 4 5 6
6	I am confident in my ability to get students to work together in pairs or in small groups.	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 able to calm a student who is disruptive or noisy.	1 2 3 4 5 6
10	I am able to get children to follow classroom rules.	1 2 3 4 5 6
11	I am confident when dealing with students who are physically aggressive.	1 2 3 4 5 6
12	I can make my expectations clear about student behaviour.	1 2 3 4 5 6
13	I can assist families in helping their children do well in school.	1 2 3 4 5 6

14	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
15	I am confident in my ability to get parents involved in school activities of their children with disabilities.	1 2 3 4 5 6
16	I can make parents feel comfortable coming to school.	1 2 3 4 5 6
17	I can collaborate with other professionals (e.g itinerant teachers or speech pathologists) in designing educational plans for students with disabilities.	1 2 3 4 5 6
18	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

Appendix 12: Demographic Questionnaire Bangla Translation

<u>mvavi b cwi wPwZ gj K Z__¨</u>

অনুগ্রহ করে উপযুক্ত স্থানে টিক (✓) দিন অথবা প্রয়োজনীয় তথ্য লিখুন।

ক. আমি শিক্ষক হিসেবে কাজ করছি :

    1. cÖ_wgK wk¶v¯—রে ....   ২. মাধ্যমিক শিক্ষাস্তরে..............

    ৩. শিক্ষকতা পেশায় জড়িত নই............

খ. বর্তমানে আমি যে প্রশিক্ষণ কার্যক্রমে অংশ নিচ্ছি তার মেয়াদ:

    1. GK eQi ....   2. `ÕB eQi ....

    3. Pvi eQi ....   4. A b¨vন্য, উল্লেখ করুন...............

M. wj ½ :   ১. পুরুষ ....   2. gwnj v ....

N. eqm: .... eQi

ঙ. আমি যে শিক্ষা/শিক্ষক প্রশিক্ষণ কার্যক্রমে অংশগ্রহণ করছি, তার শিক্ষাক্রমে একীভূত/বিশেষ শিক্ষা বিষয়ে ধারণা দেয়া হয়:

    1. n¨v ....   2. bv ....

চ. আমার সর্বোচ্চ শিক্ষাগত যোগ্যতা:

    ১. মাধ্যমিক বা সমমান .... ২. উচ্চ মাধ্যমিক বা সমমান ....

    ৩. স্নাতক বা সমমান................ ৪. মাস্টার্স বা সমমান....................

    ৫. অন্যান্য, উল্লেখ করুন...............

Q. wk¶KZvi AwfÁZv :

    1. নেই.................................২. এক বছরের কম...................

    3. এক থেকে দুই বছর..............৪. তিন থেকে চার বছর...............

    5. cvÖP eQi ....৬. পাঁচ বছরের অধিক..................

জ. আমার প্রতিবন্ধিতা রয়েছে:   ১. n¨v ....   2. bv ....

ঝ. যদি প্রতিবন্ধিতা থেকে থাকে তাহলে উপযুক্ত প্রতিবন্ধিতা চিহ্নিত করুন:

    ১. পূর্ণাঙ্গ দৃষ্টিহীনতা..........   আংশিক দৃষ্টিসম্পন্ন.........

    ক্ষীণ দৃষ্টিসম্পন্ন ....

২. অতি গুরুতর শ্রবণ প্রতিবন্ধিতা..........   আংশিক গুরুতর শ্রবণ

cÖwZeÜxZv.......... ¯^í kŠY cÖwZeÜxZv..........

৩. অতি গুরুতর শারীরিক প্রতিবন্ধিতা........আংশিক গুরুতর শারীরিক

cÖwZeÜxZv....... ¯^í kvi xwi K cÖwZeÜxZv.......

৪. অন্যান্য, উল্লেখ করুন...................................

ঞ. আমার প্রতিবন্ধী ব্যক্তির সাথে মেশার ও কথা বলার যথেষ্ট সুযোগ হয়েছে

     1. n¨v............   2. bv ....

ট. আমার প্রতিবন্ধী শিক্ষার্থীদের লেখাপড়া করানোর যথেষ্ট অভিজ্ঞতা রয়েছে

     1. n¨v............   2. bv ....

ঠ. প্রতিবন্ধী শিক্ষার্থীদের লেখাপড়া করানোর বিষয়ে আমার প্রশিক্ষণ নিম্নরূপ:

১. কোন প্রশিক্ষণ নেই .... ২. কিছু প্রশিক্ষণ রয়েছে ....

৩. যথেষ্ট/দীর্ঘমেয়াদী প্রশিক্ষণ রয়েছে (কমপক্ষে ৪০ ঘন্টা) ....

ড. প্রতিবন্ধী শিশু সম্পর্কিত স্থানীয় আইন বা নীতিমালা সম্পর্কে আমার জ্ঞান/ধারণা নিম্নরূপ:

১. নেই ....   ২. খুব সামান্য ....   ৩. মোটামুটি ....

4. f~vj ....   5. LyeB f~vj ....

ঢ. প্রতিবন্ধী শিক্ষার্থীদের লেখাপড়া করানোর বিষয়ে আমার আত্মবিশ্বাস নিম্নরূপ:

১. খুব নিম্ন ....   ২. নিম্ন............   ৩. মোটামুটি............

৪. উচ্চ............   ৫. খুবই উচ্চ............

ণ. প্রতিবন্ধী শিক্ষার্থীদের লেখাপড়া করানোর বিষয়ে আমার অভিজ্ঞতা নিম্নরূপ:

১. নেই ....   ২. কিছু রয়েছে ....

৩. যথেষ্ট রয়েছে (কমপক্ষে ৩০ কর্মদিবস) ....

Appendix 13: SACIE Bangla Translated Scale

<u>একীভূত শিক্ষা সম্পর্কে অনুভূতি, দৃষ্টিভঙ্গি এবং উদ্বিগ্নতা নির্ণয়ের স্কেল</u>

আপনার কাছে যে উত্তরটি প্রযোজ্য মনে হয় সেটিতে টিক (✓) ẁ b:

		একেবারেই GKgZ bB	GKgZ bB	GKgZ	m¤úY© GKgZ
1	আমি এ বিষয়টি নিয়ে উদ্বিগ্ন/চিন্তিত যে, cÖZeÜx শিক্ষার্থীকে ক্লাসের অন্যরা গ্রহণ করবে না				
2	আমার এইভেবে ভয় হয় যে, আমিই হয়ত একসময় প্রতিবন্ধী হয়ে যাব/যেতে পারি				
3	যেসব শিক্ষার্থী তাদের মনের ভাব মুখের ভাষায় প্রকাশ করতে সমস্যা বোধ করে, তাদের সাধারণ ক্লাসে/বিদ্যালয়ে অন্ৰ্ভ Kiv DwPZ				
4	আমি এ বিষয়টি নিয়ে উদ্বিগ্ন/চিন্তিত যে, একীভূত শ্রেণীতে সকল শিক্ষার্থীর প্রতি প্রয়োজনীয় মনযোগ দেয়া কঠিন হবে				
5	আমার প্রতিবন্ধীব্যক্তিদের সাথে কথাবার্তা সংক্ষিপ্ত করার প্রবণতা রয়েছে এবং আমি তাদের সাথে যতটা সম্ভব খুব দ্রুত কথা শেষ Kwi				
6	যেসকল শিক্ষার্থী অমনোযোগী অর্থাৎ যারা কোন বিষয়ে বেশীক্ষণ মনযোগ ধরে রাখতে পারেনা, তাদের সাধারণ ক্লাসে/বিদ্যালয়ে অন্ৰ্ভ Kiv DwPZ				

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7	আমি এ বিষয়টি নিয়ে উদ্বিগ্ন/চিন্তিত যে, আমার ক্লাসে প্রতিবন্ধী শিক্ষার্থী থাকলে আমার কাজের চাপ বেড়ে যাবে				
8	যে সকল শিক্ষার্থীর ভাববিনিময়ের জন্য প্রযুক্তির (যেমন, ব্রেইল, ইশারা f vl v) সহায়তা প্রয়োজন, তাদের সাধারণ ক্লাসে/বিদ্যালয়ে অন্ f ঃ K i v DwPZ				
9	আমার প্রতিবন্ধিতা থাকলে/থাকায় আমি খুবই খারাপ বোধ করতাম/করি				
10	আমি এ বিষয়টি নিয়ে উদ্বিগ্ন/চিন্তিত যে, আমার ক্লাসে প্রতিবন্ধী শিক্ষার্থী থাকলে আমি অধিক মানসিক চাপের মধ্যে থাকব				
11	আমি কোন প্রতিবন্ধি ব্যক্তির মুখের দিকে সরাসরি তাকাতে/ তাকিয়ে কথা বলতে স্বাচ্ছন্দ্যবোধ করিনা				
12	যে সকল শিক্ষার্থী প্রায়ই পরীক্ষায় অকৃতকার্য হয়, তাদের সাধারণ ক্লাসে/বিদ্যালয়ে অন্ f ঃ K i v DwPZ				
13	আমার যখন কোন গুরুতর মাত্রার শারিরীক প্রতিবন্ধী ব্যাক্তির সাথে আমার দেখা হয়, তখন এর প্রাথমিক ধাক্কা কাটিয়ে ওঠা আমার পক্ষে কঠিন হয়				
14	আমি এ বিষয়টি নিয়ে উদ্বিগ্ন/চিন্তিত যে, প্রতিবন্ধী শিক্ষার্থীদেরকে লেখাপড়া করানোর জন্য যে জ্ঞান ও দক্ষতা প্রয়োজন তা আমার নেই				
15	যেসকল শিক্ষার্থীদের ব্যক্তিগত শিখন চাহিদা পূরণের জন্য পৃথক শিক্ষা পরিকল্পনা প্রয়োজন, তাদের সাধারণ ক্লাসে/বিদ্যালয়ে অন্ f ঃ K i v DwPZ				

Appendix 14: TEIP Bangla Translated Scale

GKxfZ wk¶v ev¯Z বায়নে স্ব-সামর্থ্যে বিশ্বাস সংক্রান্ত স্কেল

এই প্রশ্নমালাটি দৈনন্দিন শ্রেণী-কার্যক্রমে যে উপাদানগুলো ভূমিকা রাখে কার্যাবলীর মাধ্যমে GKxfZ wkLb-শেখানোর পরিবেশ তৈরীতে ভূমিকা রাখে সে সম্পর্কে ধারণা লাভের জন্য প্রণয়ন করা হয়েছে। প্রশ্নমালাটিতে 18টি উক্তি আছে। উক্তিসমূহের সাথে এক বা ভিন্ন মত প্রকাশের ৬টি মাত্রা রয়েছে যা ১, ২, ৩,......,৬ দ্বারা চিহ্নিত। সংখ্যাসমূহের ব্যাখ্যা নিচে উল্লেখ করা হয়েছে। প্রতিটি উক্তির ক্ষেত্রে নিচের যে সংখ্যাটি আপনার মতামতকে পরিপূর্ণভাবে প্রকাশ করে অনুগ্রহ করে তা বৃত্তায়িত (O) করুন। অনুগ্রহ করে প্রতিটি উক্তির ক্ষেত্রেই আপনার মতামত দিন।

1	2	3	4	5	6
একেবারেই GKgZ bB (SD)	GKgZ bB (D)	wKQgvÎ vq ভিন্নমত (DS)	wKQgvÎ vq GKgZ (AS)	GKgZ (A)	m¤úৃY© GKgZ (SA)

	Dw³ mgn	একেবারেই GKgZ bB (SD)	GKgZ bB (D)	wKQ¡ gvÎ vq ভিন্নমত (DS)	wKQ¡ gvÎ vq GKgZ (AS)	GKgZ (A)	m¤úৃY© GKgZ (SA)
1	আমি বিভিন্ন মূল্যায়ন কৌশল ব্যবহার করতে পারি (যেমন, পোর্ট ফোলিও, Afx¶v, GmweG সংক্রান্ত g‡¨vqb)	1	2	3	4	5	6
2	hLb wk¶v_© xiv কোন বিষয় বুঝতে পারেনা তখন আমি তাদের বিকল্প ব্যাখ্যা বা উদাহরণ দিতে m¶g	1	2	3	4	5	6
3	Avwg Ggb cvV পরিকল্পনা করতে m¶g hv cÖ‡Z eÜx শিক্ষার্থীদের প্রত্যেকের ব্যক্তিগত wkLb Pvwn`v c‡iY করতে পারে	1	2	3	4	5	6
4	আমি শ্রেণীতে যে wel q covB Zv শিক্ষার্থীরা বুঝতে পেরেছে কিনা তা সঠিকভাবে ধারনা করতে পরি	1	2	3	4	5	6
5	আমি উচ্চ সামর্থ্যসম্পন্ন বা	1	2	3	4	5	6

		1	2	3	4	5	6
	অতি মেধাবী শিক্ষার্থীদের উপযোগীচ্যালেঞ্জসম্পন্ন কাজ নির্ধারন করে দিতে পারি						
6	শ্রেণীতে শিক্ষার্থীদের জোড়ায় বা দলে কাজ করানোর বিষয়ে আমার দক্ষতা সম্পর্কে আমি AvZ¥wek¦¥mx	1	2	3	4	5	6
7	শ্রেণীতে wek¦sLj vcY©AvPi Y ঘটার আগেই তা প্রতিরোধ করায় Avgvi mvg_© সম্পর্কে আমি AvZ¥wek¦¥mx	1	2	3	4	5	6
8	আমি শ্রেণীতে বিশৃঙ্খলাপূর্ণ আচরণ নিয়ন্ত্রণ করতে সক্ষম	1	2	3	4	5	6
9	আমি বিশৃংখল AvPi YKvi x ev গোলমালকারী শিক্ষার্থীকে শান্ত করতে সক্ষম	1	2	3	4	5	6
10	শিক্ষার্থীরা যাতে শ্রেণীর নিয়ম কানুন মেনে চলে সে ব্যবস্থা করতে আমি m¶g	1	2	3	4	5	6
11	যে সব শিক্ষার্থী অন্যদের আক্রমণের প্রবণতা দেখায় (বা শারিরীকভাবে মারমুখী) তাদের নিয়ন্ত্রণে আমি AvZ¥wek¦¥mx	1	2	3	4	5	6
12	আমি শিক্ষার্থীদের কাছ থেকে কি ধরনের আচরণ প্রত্যাশা করি সে সম্পর্কে সুস্পষ্ট ধারণা দিতে সক্ষম	1	2	3	4	5	6
13	অভিভাবকরা যাতে তাদের সন্তানকে স্কুলে ভাল Ki vi জন্য সাহায্য করতে পারে - এ বিষয়ে Awg wk¶ v_©i অভিভাবককে সাহায্য করতে পারি	1	2	3	4	5	6

14	Awg cÖwZeÜx শিক্ষার্থীদের লেখাপড়া করানোর ক্ষেত্রে অন্যান্য wk¶K Ges সহযোগীদের সাথে সাথে একযোগে কাজ করতে সক্ষম	1	2	3	4	5	6
15	cÖwZeÜx শিক্ষার্থীদের অভিভাবকদের we`¨vj q কার্যাবলীতে জড়িত Ki vi Rb¨ Avgvi দক্ষতা সম্পর্কে আমি AvZ¥wek¦vmx	1	2	3	4	5	6
16	আমি অভিভাবকদের বিদ্যালয়ে কার্যক্রমে নিয়ে আসার ক্ষেত্রে তাদের মাঝে স্বাচ্ছন্দ্যবোধ সৃষ্টিতে m¶g	1	2	3	4	5	6
17	Awg cÖwZeÜx শিক্ষার্থীদের শিক্ষা-cwi Kí bv প্রণয়নে Ab¨vb¨ পেশাজীবীদের (যেমন,অন্যান্য wk¶K, w¯úP প্যাথলজিস্ট) সঙ্গে একযোগে কাজ করতে সক্ষম	1	2	3	4	5	6
18	hvi v cÖwZeÜx শিক্ষার্থীদের GKxf~Z Ki Y mswkó wbqgvej x ev নীতিমালা সম্পর্কে সামান্যই জানে, আমি তাদের এ বিষয়ে আরো তথ্য দিতে সক্ষম	1	2	3	4	5	6

Appendix 15: Phase 1 Study Interview Protocol for the Institution Heads

<u>Interview Protocol for the Institution Heads</u>

1. What is your opinion about involving children with diverse needs in the regular classroom?

> 1 a. Do you think that it is possible for a regular classroom teacher to support all children in a diverse classroom?
>
> If yes, why? .... If no, why not?

2. Can you identify some key attributes of the pre-service teacher education course content that helps teachers to deal with children with diverse needs?

3. Can you identify some significant things in the practicum areas of the teacher preparation course that provide teachers opportunity to deal with children with diverse needs?

4. Can you suggest some key strategies to develop teaching learning skills of pre-service teachers to deal with children with diverse needs in their classroom?

5. Can you identify some significant challenges that you think teacher preparation program is facing most to deal with children with diverse needs?

> a. In academic areas......
>
> b. What could be some strategies to address those challenges?
>
> c. In practicum areas......
>
> d. What could be some strategies to address those challenges?

6. Can you identify some challenges that you think teachers would face most to deal with children with diverse needs?

     a. What could be some strategies to address those challenges?

7. Do you have any suggestions about how the teacher training at the university/institution could be further improved teachers to teach effectively a class of diverse learners?

Appendix 16: Phase 2 Study Interview Schedule

<u>**Phase 2 Study Interview Schedule**</u>

a. Secondary level pre-service teachers have more self-efficacy and positive attitudes and less concern towards inclusive education than primary level pre-service teachers.

What is your opinion about it? What could be the reasons behind it?

b. Female pre-service teachers showed more positive attitudes, but less self-efficacy towards inclusive education than males.

What do you think about this result? What could be the reasons behind it?

c. Student teachers who are in 4-year length course showed less self-efficacy and negative attitudes than the one year length course.

How do you judge this response? What could be the reasons behind it?

d. Do you have any suggestions about revising our existing teacher preparation curriculums so that we can address such issues properly for inclusive education?

Appendix 17: A Sample of e-mail Correspondence with the Interviewees for Feedback on Transcribed Data

[e-mail format]

Date:

To

Mr. /Ms./Dr. ……………………

Principal/Superintendent/Dean/Director

……………..Primary   Teachers'   Training   Institute/Teachers'   Training

College/………………………………….University

Dear Sir/Madam

Thank you for participating in the interview conducted for the PhD study titled Pre-service Teachers' Preparedness for Inclusive Education in Bangladesh. This study is being conducted at the Faculty of Education of Monash University, Australia.

Please find attached a copy (transcribed and typed in Bangla) of your interview. There could be some typing/spelling errors, please ignore it. If you have any observation or comments on the interview data, please provide me through e-mail.

Thank you once again for your cooperation.

Regards

M. Tariq Ahsan

PhD Researcher,

Faculty of Education, Monash University, Australia

Appendix 18: Demographic Information of the Pre-service Teachers

Variable	n (Total N=1623)	Percentage (%)
Level of Training Involved		
Primary	890	54.8
Secondary	733	54.2
Length of Training		
1-year	1429	88
4-year	194	12
Gender		
Male	631	38.9
Female	992	61.1
Age		
30 years and less	1229	75.7
Above 30 years	394	24.3
Presence of IE/SpEd components in the course		
Yes	1334	82.2
No	289	17.8
Highest Level of Education		
Secondary School Certificate-SSC (Grade X)	30	1.8
Higher Secondary Certificate-HSC (Grade XII)	411	25.3
Bachelors Degree	566	34.9
Masters & Postgraduate Degree	584	36.0
Bachelor Degree with an Education Degree	9	0.6
Masters Degree with an Education Degree	23	1.4
Previous Teaching Experience		
None	185	11.4
Less than one year	645	39.7
1-2 years	194	12.0
3-4 years	191	11.8
5 years	59	3.6
More than 5 years	349	21.5
Presence of any Disability		
Yes	45	2.8
No	1578	97.2

Significant Interaction/dealing with People with Disabilities

Yes	818	50.4
No	805	49.6

Experience in Teaching Children with Disabilities

Yes	83	5.1
No	1540	94.9

Training on Educating Students with Disabilities

None	1421	87.6
Some	175	10.8
High (At least 40 class-hrs)	27	1.7

Knowledge of Local Legislations on Children with disabilities

None	548	33.8
Poor	598	36.8
Average	435	26.8
Good	34	2.1
Very Good	8	0.5

Experience level in Teaching Students with Disabilities

Nil	1071	66.0
Some	486	29.9
High (At least 30 full days)	66	4.1

Confidence level in Teaching Students with Disabilities

Very Low	131	8.1
Low	169	10.4
Average	984	60.6
High	246	15.2
Very High	93	5.7

Appendix 19: A Sample of Manuscript Reprint Permission Letter

USF
UNIVERSITY OF
SOUTH FLORIDA

May 13th 2014

Dear Mr. Ahsan,

Please accept this permission to reprint for the purposes of your thesis your article:

Exploring Pre-Service Teachers' Perceived Teaching-Efficacy, Attitudes and Concerns About Inclusive Education in Bangladesh,

published in the International Journal of Whole Schooling (Vol. 8, No. 2, 2012).

Thank you for publishing in our journal and all the best with your thesis by publication.

Sincerely,

Phyllis Jones

Editor, International Journal of Whole Schooling.