EDUCATING THE FUTURE: RAISING THE QUALITY OF PRIMARY SCHOOLING IN BANGLADESH

by

Sandra Nikolic
Bachelor of Arts, University of Victoria, 2001

PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF PUBLIC POLICY

In the
Faculty
of
Arts and Social Sciences

Sandra Nikolic, 2006

SIMON FRASER UNIVERSITY

Spring 2006

SIMON FRASER UNIVERSITY

PARTIAL COPYRIGHT LICENCE

I hereby grant to Simon Fraser University the right to lend my thesis, project or extended essay (the title of which is shown below) to users of the Simon Fraser University Library, and to make partial or single copies only for such users or in response to a request from the library of any other university, or other educational institution, on its own behalf or for one of its users.

I further grant permission to Simon Fraser University to keep or make a digital copy for use in its circulating collection.

I further agree that permission for multiple copying of this work for scholarly purposes may be granted by me or the Dean of Graduate Studies. It is understood that copying, publication or public performance of this work for financial gain shall not be allowed without my written permission.

Licence for use of multimedia materials:

☐ No separate DVD or CD-ROM material is included in this work. Multimedia licence not applicable to this work.

☐ Public performance permitted:
Multimedia materials that form part of this work are hereby licenced to Simon Fraser University for educational, non-theatrical public performance use only. This licence permits single copies to be made for libraries as for print material with this same limitation of use.

☐ Public performance not permitted:
Multimedia materials that form part of this work are hereby licenced to Simon Fraser University for private scholarly purposes only, and may not be used for any form of public performance. This licence permits single copies to be made for libraries as for print material with this same limitation of use.

Title of Thesis/Project/Extended Essays:

EDUCATING THE FUTURE: RAISING THE QUALITY OF PRIMARY SCHOOLING IN BANGLADESH

Author: _____

Sandra Nikolic

_____

(Date Signed)

SIMON FRASER UNIVERSITY

PARTIAL COPYRIGHT LICENCE

Simon Fraser University

Ethics Approval

The author, whose name appears on the title page of this work, has obtained human research ethics approval from the Simon Fraser University Office of Research Ethics for the research described in this work, or has conducted the research as a member of a project or course approved by the Ethics Office.

A copy of the approval letter has been filed at the Theses Office of the University Library at the time of submission of this thesis or project.

The original application for ethics approval and letter of approval is filed with the Office of Research Ethics. Inquiries may be directed to that Office.

Bennett Library
Simon Fraser University
Burnaby, BC, Canada

Approval

Name: **Sandra Nikolic**

Degree: **Master of Public Policy**

Title of Project: **Educating the Future: Raising the Quality of Primary Schooling in Bangladesh**

Supervisory Committee:

_____

Title and Name
Senior Supervisor
Public Policy Program

_____

Title and Name
Supervisor
Public Policy Program

Date Approved: _____

Abstract

This study investigates the low quality of primary school education in Bangladesh. Literature and elite interviews suggest that GoB (Government of Bangladesh) primary schools fail to provide students with quality education, demonstrate poor teacher performance, have overcrowded classrooms, and weak management and administration. Quantitative analysis of parents with primary-aged children reveals that of the four principal primary schooling options available. GoB public primary schools are more likely than other primary schooling options to exhibit components of poor quality. Findings indicate that parents are equally concerned about male and female education; that administration functions are of concern, and that poverty is an overarching barrier to attendance and retention rates. The important policy message is the need for establishing a system of accountability of school performance to parents and communities. All stakeholders, in turn, should be involved in partnerships affecting primary school conditions.

Executive Summary

This study employs both qualitative and quantitative approaches to address the low quality of primary education in Bangladesh, where quality is measured by the educational resources available to children (inputs) and low academic performance of primary-aged children (outputs). In the study, the necessary conditions for *quality* are twofold: (1) transparent and accountable administration and management at both the central government and upazila (district) level; and (2) effective, efficient and relevant teaching and applicable learning materials.

The Government of Bangladesh (GoB), in committing itself to international and national education targets, has significantly improved the number of educated children; it has raised the primary school enrolment from 12 million to 18 million between 1990 and 1998. Still, many parents choose to enrol their children in user-pay private schools, schools run by non-governmental organisations, and madrasas (Islamic-based schools, which focus teachings in Arabic). This variety in the types of schooling available is cause for concern due to differences in material taught, disparities in teacher-training within primary schooling options, and knowledge (in the form of comprehension of required competencies) passed on to children. In addition, there is an increasing lack of access for the poor (especially the rural poor) populations of Bangladesh to basic education due to geographic distances from schools, and the need for children to work.

A review of literature, elite interviews, and parental surveys of primary-aged children reveal significant challenges to providing quality primary education to children in Bangladesh. Common problems within the primary education sector include management and administration deficiencies, inadequately trained teachers, different teacher training for primary teachers in different types of schools, large travel times and distances between schools and homes, and lack of appropriate access to quality sources of primary education for the disadvantaged and poor population. Data indicate that inadequate improvements in education will aggravate social and economic rifts among the nation's population. In a nation that requires improvements to primary education in order to raise human capital, and thus lessen socio-economic rifts among the population, raising quality of and access to education is of central concern.

Descriptive survey result analyses of parents and guardians of primary-aged children within the case study area reveal that:

- BRAC schools (which target disadvantaged girls and poor populations) are utilised by families of all socio-economic backgrounds;
- Poverty is a limitation to primary education access. Specifically, children who are enrolled in GoB public primary schools are more likely than children enrolled in other forms of primary schooling to miss school due to employment obligations;
- While poor teacher quality is a general theme, parents whose children attend GoB public primary schools are more likely to state that teacher quality is a problem;
- Poor school management and administration is more likely to be considered a problem within GoB public primary schools; and
- Due to positive discrimination by NGOs, compensation schemes by the GoB, and changing social customs and norms, girls' education is now given equal importance to boys' by parents and guardians.

A multinomial logistic regression reveals that the following factors are significant in predicting the likelihood that a parent/guardian will choose to send their child to BRAC-run primary schools, private primary schools, and madrasas over GoB public primary schools:

- Distance between school and home;
- Problems with school administration and management;
- High absentee rates for children who miss school in order to work;
- Wages the parent pays a tutor;
- Increases in parental enrolment of primary-aged children due to government stipends;
- Parental employment status; and
- Problems with teachers within child's school.

The above multinomial logistic regression findings prompted four alternatives to the status quo. The first alternative is to replace the current government stipend programme with a school voucher programme. The current programme largely focuses on improving the educational opportunities available to girls and poor families. Survey results indicate that almost all parents (82.5 per cent) believe that girls' and boys' education holds equal importance. Literature indicates that government stipend programmes present risks of families using stipend amounts for purposes other than for the educational advancement of their children. Therefore, the GoB should implement a school voucher system that ensures that any stipend amount awarded to families will go specifically the primary school choice of parents. A voucher programme will also give opportunity for individual schools to use voucher amounts for school improvements, including in-

service teacher training, higher teacher salaries (which will address poor teacher motivation), attainment of relevant school materials, school infrastructure, and services for students. Placing all types of primary schools in competition with one another for student enrolments and voucher amounts will promote individual school improvements. Essentially, schools will be accountable to all actors, including parents and children.

The second proposed alternative is a move towards further decentralisation of the primary education sector. Under the current system, administration occurs at a highly centralised level, where individual school leaders are unable to undertake school changes and reforms applicable to specific schools. A push for local level control will allow upazila authorities to gain responsibility for the overall planning and management of primary education. According to survey results, current parent-teacher associations (PTAs) and school management committees (SMCs) have little to no function. In a decentralised sector, parent-teacher organisations, school management committees, and concerned community members will have an increased ability in holding education personnel accountable for decisions.

The third policy alternative is to encourage universal teacher training for all teachers involved in primary education. Literature maintains that current GoB teachers follow memorisation and rote-learning techniques – techniques considered inefficient for the learning needs of young children. At the same time, NGO primary teachers, although trained to teach on a needs-based system which incorporates active-learning techniques, are criticised as being inadequate in offering students high level literacy and numeracy skills. A formal teacher-training programme developed in collaboration by both the GoB and NGOs will provide the benefits of both training programmes. Teacher training that is constant among all types of primary teachers will lessen discrepancies in academic levels of primary learners.

The fourth alternative is to encourage an active pressure network consisting of NGOs, donors, and community members to apply pressure on the GoB to undertake quality-improvements at the management and administration level. Analysis of the data in the study indicates that parents are concerned with the administrative and management abilities within the primary school system. Pressure applied by donors, NGOs, and community members can influence how aid money is spent, as literature and elite interview data suggests that GoB education practices and standards are likely to shift with appropriate pressure from NGOs, donors, teachers, parents, and community members.

As ranked by criteria used to assess policy alternatives, the following recommendations are made:

- Establish of a unified network consisting of representatives from donor agencies, members of NGOs, and concerned community members. This network's primary purpose is to lobby and advise the GoB on aspects of primary education management and administration, and will also have the opportunity to lobby and place pressure on NGO-run establishments, private establishments, and madrasas in terms of teaching and learning practices;

- Further decentralise the primary education sector. Resources (physical infrastructure and manpower) are already in place, which will bring down costs;

- Promote local level comprehensive planning, with the aim of identifying and implementing essential quality improvements in all primary education institutions in each sub-district, including management and administration, physical infrastructure and services offered to students, teacher training, and application of a needs based curriculum design;

- Replace the existing government stipend programme for underprivileged students, namely girls, with a more comprehensive school voucher programme. To ensure that vouchers fall into the hands of those who truly need them, this programme must be highly regulated and evaluated by an independent body not affiliated with local school or upazila officials or community elites. These officials and elites have been blamed in the past for using coercion and influence for personal gain. Possible regulative bodies include members of CAMPE and other NGO and donor agencies. Individual schools will be able to use funds acquired for school curriculum, learning materials, teacher salary, and administration and management improvements only; and

- Impose stricter teacher training programmes as a long-term goal. This alternative will be time and energy consuming in terms of collaboration between government and non-government units, and will incur costs to revitalize and manage GoB, NGO, private, and madrasa curriculum and teacher practices. Still, improvements in the training of teachers within all primary schools should be undertaken post-decentralisation, as teacher-training programmes, and curriculum design will likely be more open to the input and design of all interested stakeholders.

These recommendations should be undertaken as a pilot project in the case study area. If it is found that the pilot meets desired objectives; recommendations should implemented regionally, and nationally, until full implementation is achieved.

Acknowledgements

I offer many thanks to Dr. Nancy Olewiler for guidance, support, and suggestions, and to Dr. John Richards for allowing me to visit and work in an amazing country and introducing me to the state of Bangladesh's primary education system. You have both presented me with irreplaceable knowledge and experiences. This learning process will definitely be unforgettable

I offer sincere gratitude to those who assisted with this study. I thank the survey team; Shah Paran, Mohammadul Hasan, Farhad Hossain Mazumder (Jewel), Mohammad Jonaed Miah (Jon), Arafath Yasir, and Mohammad Ashraful Alam (Rana) for collecting valuable data. Thank you also, Dr. Allimulah Myan, for guiding me through the initial stages of the data collection process.

Thank you, Mohammad Naim Khan, and Sam Hoque, who translated from English to Bangla and vice versa for me. All data collected would have been for nought without your exceptional language skills and timely work ethic.

Thank you, Dan for assisting with survey coding and re-coding.

Lastly, thank you to Alana and Diana for editing this piece. I am grateful for the positive criticisms and ideas.

Table of Contents

List of Figures

List of Tables

Glossary

ADB	Asian Development Bank
BRAC	A Bangladeshi NGO (formerly known as the Bangladesh Rural Advancement Committee)
CAMPE	Campaign for Popular Education
C-i-E	Certificate in Education
CLC	Children's Learning Centre
EFA	Education for All
FFE	Food for Education
GoB	Government of Bangladesh
HSC	Higher Secondary Certificate
Madrasa	An Islamic Seminary School
MOPE	Ministry of Primary Education
NGO	Nongovernmental organisation
PEDP II	Second Primary Education Development Programme
PTA	Parent Teacher Association
PSQL	Primary School Quality Level
SAP	Structural Adjustment Policy
SMC	School Management Committee
SSC	Secondary School Certificate
Taka	The national currency of Bangladesh
Upazila	Geographical and political sub-district

1 Introduction

Concern for children is understandable given that they are the future of a nation. As such, the Dakar Framework for Action and the Millennium Development Goals assert that by 2015 all children have access to "complete free and compulsory primary education of *good quality"* (UNESCO, 2005, box 1.1; emphasis added). Yet, many nations have chosen to concentrate on increasing the number of children attending school, rather than improving the quality of education provided. Bangladesh is a nation that has exhibited such quantity-focussed efforts.

Bangladesh has received international recognition for its strong national commitment to education, as well as for the advances it has made towards achieving 'education for all'. Efforts to improve the number of educated individuals in a nation are vital. The key to achieving high rates of economic growth, shared equitably by the population, lies in the development and utilisation of human resources – a resource that Bangladesh enjoys in abundance. Increasing the number of educational institutions has therefore been a priority for all governments that have assumed office since the country's independence in 1971.

Currently, Bangladesh illustrates a tiered system of education: (1) private English-medium schools catering to privileged families; (2) a highly centralised public school system, consisting of Bangla-medium schools for the poor; (3) religious seminaries, called madrasas; and (4) NGO-facilitated schools, which began by catering to hard-to-reach children (Ahmed, 2005). Each of the four educational providers has its own syllabuses, exam schedules and fee structures, creating an air of disparity – in terms of quality of education, professional opportunities available to graduates, and the already vast social and economic divisions within the country – between them. Disparity in the types of primary education available may account for troubling numbers of un-enrolled primary-aged children (approximately 2.5 million in 2001), large numbers of children dropping out of school prior to completion of all five primary-level grades (30 per cent of all enrolled children), and low achievement among those who do complete the full primary cycle of schooling. On average, children who complete grade five usually do so at a grade three-achievement level (CAMPE, 2001). As well, alarmingly low attendance rates (58 percent attendance) may be attributable to a complicated and often insufficient system of primary education.

Focussing on increasing the quantity of education is not sufficient to provide primary-aged children with the necessary materials, learning aids, qualified and motivated teachers, and adequate school administration required for satisfactory learning. Nor does it encourage parental support of the education system. The objective of this study is to present survey results, analysis, and research material in a way that will assist and inform decision makers. Causes for low child attendance rates; school, teacher and environmental qualities; and the type of primary school parents choose to enrol their children in receive specific focus. Additionally, the study will determine deficiencies within the primary school system of Bangladesh, with emphasis placed on a case study area – Sector 4, Uttara Model Town, located in Dhaka. The sample survey of residents in the case study neighbourhood provides a snapshot into the shortcomings of the primary education system, as well as parent and guardian concerns regarding the various available primary schooling options.

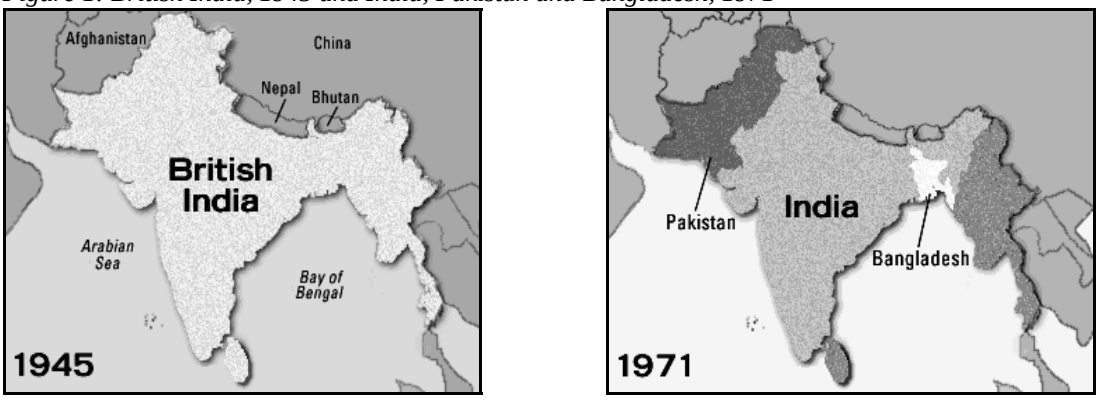
1.1 Bangladesh – A Brief History

Bangladesh has experienced a great deal in terms of civil wars, famines, extreme poverty and over-population, and natural disasters in its short history. For almost two centuries before partition in 1947, East Bengal was part of the British Empire. During the late 19th century, Muslim and Hindu leaders within the empire began to seek independence (Drewes, 2003). At the end of World War II, the United Kingdom moved to grant sovereignty to the South Asian region, and in June 1947, two states, India and Pakistan, were granted independence. The intent was to create a Muslim majority state comprised of both districts of Western British India (Pakistan), as well as parts of East Bengal (now Bangladesh). Such an arrangement was unsatisfactory: over 1,500 kilometres of Indian territory separated West from East Pakistan.

Tension between East and West Pakistan grew, mostly because the central government was located and functioned out of the West, leading many in East Pakistan to believe that the government favoured Western interests. Such hostility eventually led to a civil war between the two regions in 1971. The Bangladeshi rebels, supported by the Indian army, eventually defeated the Pakistani army, leading to Pakistan's surrender and Bangladesh's independence on December 16, 1971 (Ahmed, 2001).[1]

[1] For further information regarding the history of Bangladesh see Ahmed (2001), Chitkara (1997), and Umar (2004).

Figure 1: British India, 1945 and India, Pakistan and Bangladesh, 1971



(Source: Keen, 1998)

The figures above illustrate political boundaries of British India in 1945, and of the post-1971 independent states of Pakistan, India, and Bangladesh.

1.2 The Socio-Economic Situation in Bangladesh Today

Today, Bangladesh is one of the poorest countries in the world; consisting of a predominantly rural economy and a large population of nearly 150 million.[2] The nation has a GDP per capita of US$1,770 per annum (measured in purchasing power parity), and a Human Development Index [HDI] rank of 139 out of 173 listed countries (UNDP, 2003). The nation's parliamentary democratic government experienced a particularly rough start; facing a war-ravaged economy, as well as a society in need of relief and reconstruction. At present, the country is plagued with many problems including poor health care, gender inequality, and an illiteracy rate of approximately 65 per cent (United Nations, 2005).

Bangladesh spends about 2.3 per cent of its GDP on education (about half of the 4 per cent that UNESCO recommends), with most of that capital going towards teacher and administrative salaries, leaving inadequate funds for development of curriculum, infrastructure, learning materials, and other productive inputs (Ahmed, 2005).

Bangladesh receives about US$1.57 billion in aid every year (Drewes, 2003).[3] Yet, political infighting, slow implementation of economic and social reforms, corruption within as

[2] Bangladesh has a population of approximately 145 million residing on a land area of 133,910 square kilometers. (This is less than half of the total land area of British Columbia, or slightly smaller than the State of Iowa) (Bangla2000, 2000; CIA World Fact Book, 2005).
[3] This refers to the net inflow of Official Development Finance to Bangladesh,

well as lack of faith in government, stalls development and in turn, affects progressive reform of the education system.

2 Policy Problem

The Government of Bangladesh (GoB) has committed itself to the goals of the 2000 Jomtien, Thailand conference dedicating nations to *free, public* 'Education for All' by 2015. The government has improved its number of educated citizens significantly since that time: raising the primary school enrolment from 12 million to 18 million between 1990 and 1998. However, many parents have opted to enrol their children in user-pay private schools, schools run by non-governmental organisations (whose teachers have limited training), and madrasas (Islamic-based schools, which focus teachings in Arabic). The variety of schooling options available creates inter-sectoral competition between schools, which may increase quality improvements in primary education. Yet, differences in material taught, class-time per week, and general knowledge passed on to children are cause for concern. Many children and parents have the eventual goal of enrolment in public high school, but with so many different types of primary schooling available, with dissimilar teaching practices and a lack of emphasis on quality, there is no guarantee that all children start secondary education with the same skills and knowledge. In addition, the poor (especially the rural poor) of Bangladesh lack access to education due to distances from schools, and the need for children to work.

The policy problem in this study is that the quality of primary education in terms of educational resources available to children (inputs) and academic performance of primary-aged children (outputs) is too low in Bangladesh. A survey of parents with primary-aged children assists in understanding what motivates a parent or guardian to send their children to a particular type of primary school and will allow for the development of effective recommendations and policies targeted at *improving the quality* of the Bangladeshi primary education system. In this study, the necessity for high *quality* in primary education is twofold: (1) transparent and accountable administration and management at both the central government and upazila level; and (2) effective, efficient and relevant teaching and applicable learning materials. Policy

alternatives and recommendations are directed to non-governmental organisations (NGOs such as CAMPE and BRAC) working in the primary education sector in Bangladesh.[4]

Research and policy evaluation is based on literature, interviews and a case study of parents of primary-aged children in: *Sector 4, Uttara Model Town*, located in Dhaka, Bangladesh.

[4] Formerly known as the Bangladesh Rural Advancement Committee, the organisation's functions are currently not limited to simply rural advancement, nor is it limited to just Bangladesh (although its roots are tied to the country), the organisation is now simply known as 'BRAC'.

3 The Progression of Education in Bangladesh

This section provides: (1) an overview of the importance of education in Bangladesh; (2) an introduction to the spread of mass education; including the rise in quantity of educational institutions; and (3) a summary of the increasing importance of female education. Focus is placed on the role of educated pools of manpower for nation-wide economic development growth, the insufficiency of improving the quantity of education institutions, and realisations of the socio-economic benefits of educating girls.

3.1 The Importance of Education

Academic literature maintains that to understand the Bangladeshi educational system, one must be familiar with the wider context of the use of education in the country (Drewes, 2003). Blaug (1970) and others argue that education serves a different purpose in Bangladesh than in industrialised nations. Indeed, Blaug (1970) maintains that any nation undergoing economic development and growth, such as Bangladesh, requires an increasing supply of highly educated manpower, which contributes to the production of efficient citizens who keep an economy functioning. However, with problems affecting the education system in Bangladesh, such as poor quality of teachers, administration flaws, and insufficient access for poor populations, the country's schools cannot produce enough human capital to benefit the economy (Drewes, 2003). In addition, there is concern that inadequate improvements in education will aggravate social and economic rifts among the nation's population (Ahmed, 2005). Therefore, in a nation such as Bangladesh, which is in need of raising its source of human capital, raising quality of and access to education is of central concern.

3.2 Mass Education

As early as the 19th century, formal education became essential for economic development (Blaug, 1970). As national development became contingent on education, children were considered citizens of the future. Consequently, the need for and implementation of mass schooling arose (Ramirez and Boli, 1987).

Today, children serve as the ideal actors through which new ideas of nationhood are created. An interesting point suggested by Drewes (2003) is that although many developing states argue that they are dedicated to the development of the individual, the reality may be that rapid and symbolic extension of school infrastructure (the focus on *quantity* of education*)* is likely more gainful than focussing on the *quality* of education. Raising the quantity of schooling institutions is gainful in that it offers instant gratification in terms of reaching quotas set by donors and international commitments concerned with raising primary enrolment levels, compared to any sustained concern with individual development or achievement (Drewes, 2003). Such a focus on quantity may explain problems faced by the developing world in terms of substandard education systems that may be high in quantity, but low in quality, and may also rationalise why the GoB grants a large educational responsibility (in terms of providing sufficient classroom spaces for children) to NGOs and other institutions.

Bangladesh has made significant progress in improving access to education, especially at the primary level. This is largely the result of the passage of the 1991 Compulsory Education Act, which provided for universal primary education (Behrman et al., 2002). Primary education in the nation essentially consists of government and government-assisted primary schools (catering to two-thirds of the students), madrasas,[5] and at least eight other types of institutions, including NGO-run non-formal primary schools. According to the Bangladesh Bureau of Educational Information and Statistics [BANBEIS], (2005) in 2002 there were 79,836 primary schools in the country (including 3 registered, government madrasas).[6] Of these, 37,671 were run directly by the GoB, 19,428 were GoB-assisted (registered, non-government primary schools), 3,264 were community schools, 8,407 were madrasas, and 2,477 were kindergartens and further forms of schooling. Non-formal schools (including NGO-run schools, which consist of the one-teacher, one-classroom model) are not included in official national statistics, but it is estimated that such schools serve 1.5 million children.

[5] A madrasa is a seminary Islamic school.
[6] 2002 is the most recently available data.

3.3 Female Education

As identified by UNICEF (2006), although Bangladesh has achieved gender parity in primary school enrolments, there are differences in the quality of education available to boys and girls. Essentially, the education of girls reflects social norms and hence girls experience fewer opportunities to enrol in primary education. Traditionally, families in Bangladesh placed importance on educating boys as opposed to girls, since male children were more likely to enter the workforce, while girls were a source of domestic help who would eventually be married off and sent to live with their husband's family. For instance, as found in Dil (as cited in Sultan and Bould, 2004), "[educating] sons [was] particularly desirable as they [were the predominant] source of social security for parents in their old age" (p.1332). Consequently, today it is commonly argued that parents are more likely to invest in the education of their sons over their daughters.

Recently, however, the importance of skills building in girls has become realised by Bangladeshi families, as it is becoming increasingly difficult for the average family to rely simply on the wages of husbands and sons. Sultan and Bould (2004) find that large numbers of parents (in particular, mothers) state that their futures and the futures of their daughters can no longer be based upon husbands, fathers, brothers, or sons. Therefore, many mothers are opting to educate their daughters to the same level as they would their sons. For instance, in their study on the literacy of women in Bangladesh, Sultan and Bould (2004) find that most mothers believe that "there is no difference between sons and daughters […and] that one able daughter is better than ten illiterate sons" (p.1335).

Bose (2005), in her comparative study of girls' education in Bangladesh and India, found that equal access to primary education for girls and boys has already been attained in Bangladesh. According to the Millennium Development Goals of the United Nations Human Development Report (2005), the country's female to male ratio in primary enrolment is at 1.04. Sukontomarn (2003) maintains that increases in girls' enrolment are due to many factors including: (1) 'positive discrimination' actions by NGOs, whereby girls are given enrolment preference; (2) female stipend programmes, where the state offers monetary assistance to families who send their female children to school; and (3) hiring female teachers in non-formal schools. As well, as parents realise the economic and social benefits that educating girls offers, female enrolment in primary education is improving. Female enrolments can be expected to continue to increase with more families recognising these benefits.

4 Bangladesh's Dedication to Education for All

Section 4 summarises central actions the GoB has committed to in effort to achieve international and national education commitments. This includes the 1990 international 'Education for All' commitment, which was approved by 155 countries from around the world, the second Primary Education Development Programme (PEDP II), and national programmes aimed at increasing primary school enrolment through compensation.

4.1 International and National Education Commitments

At the 1990 World Conference on Education for All (EFA) in Jomtien, Thailand, delegates from 155 countries around the world reaffirmed their commitments to education as a basic human right. They agreed to universalise primary education and to reduce illiteracy by the year 2000 (UNESCO, 2001).[7] The EFA conference resulted in the enactment of a compulsory education law, which increased resource allocation and efforts to mobilise public support for universal education. Attributable to such commitments, Bangladesh has taken part in a massive push to increase enrolment in public primary education, but the country still faces obstacles, such as a lack of financial resources, infrastructure, skilled workers and teachers. Therefore, the country and its people are left with a large number of low quality public primary schools that reach only a small portion of the primary-aged population.

Bangladesh's commitment to the EFA, Dakar Framework, and the United Nations Millennium Development Goals for 2015 has prompted a strategy of poverty reduction and human development in which education, especially at the basic level, has a critical role.[8] In addition to international obligations, the GoB has committed itself to certain national goals and strategies. Such commitments are reflected in the Second Primary Education Development Programme (PEDP II), which is essentially a sub-sectoral programme of the government

[7] Refer to Appendix F for a summary of Articles within the Education for All agreement.
[8] The Dakar Framework consists of six strategies and goals in order to reach EFA by 2015, placing importance on political commitments to education, promotion of EFA policies, gender parity within the education system, and the improvement of *quality* in schooling. See Appendix G for a list of the six Dakar Goals. For a more thorough analysis of the Dakar Framework, refer to UNESCO (2001) at http://www.unesco.org/education/efa/global_co/working_group/pres1_kazi_rafiqul.shtml.

supported by external development partners (CAMPE, 2003). The programme aims to address primary education access, participation, and issues of quality with a promise of fundamental primary school quality levels (PSQL) for all children (CAMPE, 2003). Essentially, efforts by the GoB are supplemented by NGO involvement in providing children with primary education.

4.2 Government Stipend Programmes

On a national scale, Bangladesh has undertaken mass programmes aimed at increasing primary school enrolment and retention rates, such as stipend programmes, which aim to assist poor families to invest in schooling (Patrinos, 2001) when they are financially unable to do so.

The GoB launched the Food for Education (FFE) programme in July 1993, with the aim of using targeted food transfers to encourage poor families to enrol children in primary school and to keep them enrolled (Behrman et al., 2002; Ryan and Meng, 2004). According to Ryan and Meng (2004), initial expectations were that the programme would offer three benefits to recipients as well as the nation as a whole: (1) enhance human capital, therefore reducing long-term poverty; (2) provide nutritional gains to recipient families; and (3) improve the targeting of government food subsidy programmes.

Essentially, the FFE programme provided a free monthly food grain ration (either 12 kilograms of rice, or 15 kilograms of wheat) to a household, on the basis that the family met the definition of poor, and had at least one primary-aged child *regularly* attending school.[9] Although the FFE programme was widely criticised for not affecting the quality of education in the country, by 2000, it covered about 17,811 primary schools (27 per cent of total primary schools in Bangladesh) and 2.1 million, or 13 per cent of all children attending school (Ryan and Meng, 2004). It succeeded in largely increasing female enrolment and attendance rates before its discontinuation in June of 2002, largely due to increases in the price of food (Tietjen, 2003).

Between 2001 and 2002, the GoB ran the Primary Education Stipend Project (PES), which offered recipients a mere twenty-five taka per month (equivalent to approximately CDN75 cents in 2001). This project terminated in December of 2001 (Tietjen, 2003), likely due to the questionable effectiveness of offering such a small stipend amount (Tietjen et al., 2004).

[9] The enrolled child must have attended at least 85 per cent of all classes in a one month period (Ryan and Meng, 2004).

After the termination of and lessons learned from both the FFE and the PES project, the GoB implemented the Primary Education Stipend Programme (PESP) in 2002. The PESP is a strategy to increase the educational participation (in terms of enrolment, attendance, persistence and performance) of primary school-aged children from poor families by providing cash payments to targeted households (Tietjen, 2003; Tietjen et al., 2004). This cash-based stipend program quadrupled the monthly stipend amount offered by the PES program, introduced bank-mediated disbursement procedures, and placed more emphasis on children from poor families (Tietjen, 2003). The project covered more than 65,000 schools and 5.5 million children at a cost of Tk.331472.70 lakh (about CDN$700 million) over five years. In 2002, the project was approved to function for an additional five years, and an annual allocation of approximately CDN$130 million was secured for the programme (Tietjen, 2003). The PESP targets children attending GoB public primary schools, registered, non-government primary schools (private schools), NGO-run schools, and madrasas recognized by the GoB. By 2004, the programme had reached over 5.5 million children and families. According to the Ministry of Primary and Mass Education, the PESP is the single largest programme in Bangladesh (Tietjen et al., 2004). Again, it is apparent that the GoB is committed to improving access to a high quantity of educational institutions.

5 Providers of Primary Education

Primary education in Bangladesh is essentially provided by four key sources: (1) the government of Bangladesh (GoB); (2) NGOs; (3) the private sector; and (4) Islamic schools, or madrasas. While this study does not provide individual school-type case studies, this section offers an overview of how each of the four institutions delivers primary education in Bangladesh. Education delivery, teacher qualifications and performance, and monitoring and management of different school types receive focus.

5.1 The Government Public Primary School System

By way of the public primary school system, the Government of Bangladesh (GoB) retains responsibility for the task of educating approximately 30 million primary-aged children, many of whom reside in rural and hard-to-reach locations. While the public primary school enrolment rate has recently increased, just less than half (47 percent) of first graders complete a full cycle of primary education (CAMPE, 2003). The Bangladeshi government largely focuses on providing the appropriate number of spaces for children within schools (*quantity)* as opposed to focussing on the *quality* of education provided.[10] There have been massive efforts to improve the physical infrastructure of schools, along with other measures, including introduction of competency-based curricula, a new series of textbooks, teachers' guides and programmes of continuous pupil assessment; and a provision of free textbooks to all students in grades one to five. Still, many students have difficulty acquiring these materials, and classrooms remain overcrowded, exhibiting a national average teacher-student ratio of 1:66 per classroom (CAMPE, 2005). [11] The public system also displays low retention rates, a 33 per cent drop out rate (Ahmed, 2005), poorly trained teachers who have a reputation of being careless about their jobs, lack of

[10] Bangladesh's first three education development plans include; the First Five Year Plan (1973-78), the Two Year Plan (1978-80), and the Second Five Year Plan (1980-85). Such programmes directed educational spending towards the expansion of facilities to increase enrolment rates at the primary level.
[11] CAMPE (1999) reports that over half of children attending public primary school claim that they are required to pay money for books and materials, which are supposed to be free for all students within the GoB public primary school system.

materials and learning aids, and corruption throughout the education system.[12] Literature suggests that if corruption within the system did not exist, parents' confidence in the school system would likely increase, and would encourage higher student retention, attendance, and consequently, performance rates (Tietjen et al., 2004).

Haiplik (2003) suggests that the GoB has "an unclear grasp of the factors that contribute to [… improvements in education]" (p.2) due to limited research on teaching, teachers and their training. Haiplik (2003) also argues that there is a lack of synthesis of research and critical factors that make a difference to education such as poverty, gender imbalances, and targeting hard-to-reach populations (rural communities, mentally and physically disabled children, and girls). Indeed, Benoliel (2003) maintains that over the past few decades, the quality of education in the primary sector has declined in Bangladesh. Low quality of education is said to be the result of "inadequate government investment, a shortage of quality teachers, limited and inefficient teacher-training, outdated curricula, inadequate supply and poor quality of learning materials and textbooks, and weak institutional capacity at the central and local levels" (Benoliel, 2003, p.5). Academic literature maintains that problems within the GoB schooling system lie with the Ministry of Education, which is unwilling to compromise on the core national curriculum. Accordingly, although experts recommend alterations to the core curriculum, the bulk of the system is extremely difficult to shift (Archer, 1994). (Although, some maintain that with the appropriate pressure, some curriculum reform and development is likely).

A limited supply of primary teachers within the GoB public primary school system is an additional constraint within the structure. In a 2002 study analysing education standards in Bangladesh, Behrman et al. (2002) found that most public primary schools (both urban and rural) reported experiencing a shortage of teachers. Interestingly, of those who are employed as public primary school teachers, 75 per cent exhibit low attendance rates (ADB, 1997), which is argued to further lower student achievement rates, and willingness of parents to send their children to public school.

[12] Tietjen et al., (2004) maintain that corruption throughout the Bangladeshi education system is rampant – ranging from ghost schools and teachers that receive payments even though they only exist on paper, to fees that teachers charge students for materials that should otherwise be supplied free of charge.

5.1.1 Financing, Monitoring and Management

Within the GoB, primary education is mainly the responsibility of the Primary and Mass Education Division (PMED). This division, along with the Directorate of Primary Education, is responsible for the delivery of primary education services, planning for changes and improvements within the system, recruitment, posting and transfer of teachers, arranging in-service training, distribution of free textbooks, supervision of schools, and advising the GoB on any policy development within the sector (ADB, 1997; Behrman et al., 2002). For the national management of the primary school system, the Thana Education Officers and Assistant Thana Education Officers are responsible for schools at the local level (Sunkotomarn, 2003). The responsibility of the physical structure of schools is largely under the Local Government Engineering Department (LGED) (LGED, 2005, interview). According to the Asian Development Bank (1997), communication within the Department of Primary Education is inefficient, and largely paper-based information flows are non-existent.

Generally, the management of schools is highly centralised by the GoB, but schools do enjoy some independence. Allowing schools to function with relative independence can allow for the development of effective class structures and teacher supervision. For example, school principals have operational freedom within their own school campuses, yet teachers are centrally recruited, regardless of individual school needs and desires (Behrman et al., 2002). Principals have little ability and power to take corrective measures when staff performs poorly, which may be a contributing factor to high teacher absenteeism, and poor quality of teaching.

As aforementioned, Bangladesh is heavily dependent on external sources of financing for its development budget (Drewes, 2003) with external aid financing over 50 per cent of the development expenditure on education (Behrman et al., 2002). Despite external funding, resources for education are woefully inadequate. Teachers' salaries are comparable to those of garment factory workers, even though the Asian Development Bank reports that the bulk of current spending on primary education in 1998 (97.7 per cent of total spending) went towards teacher salaries and grants for salary funding (Behrman et al., 2002). Operation and maintenance of school buildings accounted for only 3.3 per cent. This leaves very little, if any, funds for educational inputs.

At the individual school level, school management committees (SMCs) and parent-teacher organisations (PTAs) are intended to encourage community and school partnerships in school management. SMCs are usually comprised of eleven members of the community and represent parents/guardians, teachers, donors, and local elites (Behrman et al., 2002). Richards

(forthcoming) warns that SMCs are susceptible to involvement by local politicians, who often contribute to "corruption, mismanagement, waste and [obstacles] to good management practices in general" (Ahmed and Nath, 2005, p.142). Parents comprise PTAs, which serve as a liaison between teachers and parents. Although both groups are required in GoB primary schools, literature argues that most SMCs and PTAs have little to no function (Behrman et al., 2002).

5.2 NGO Involvement in Primary Education

Historically, NGOs have played a role in promoting non-formal education. In fact, NGOs are under constant pressure to fill in the gaps left by declining State provision in the formal education system (Archer, 1994). The NGO sector has secured importance within the primary education system of Bangladesh, and its primary education programs are independent of government management and involvement, as the programs do not receive government financial support. Consequently, they do not seek government approval for the academic credentials they offer.

NGO involvement in Bangladeshi education is probably the most sophisticated and largest in the world, with over seven hundred NGOs involved in education programmes. Such large NGO involvement in the education sector is likely the result of the GoB's lack of effective targeting of all primary-aged children. In addition, the general homogeneity of the nation (in terms of religion, culture, language and tradition), allows similar NGO-facilitated projects to be implemented nation-wide, with little or no change (Drewes, 2003). NGOs currently function throughout the nation, providing primary education to those children left out of the government public education system.

Aid money enters the primary education system through both donor-assisted public sector teacher-training programmes, and NGO-facilitated schools. However, NGO-run schools are often criticised for providing children with only basic literacy and numeracy skills, and for employing teachers with limited or no education or teacher training. NGO schools often allow children to complete the five-year primary cycle in three to four years. This short period is likely to be inefficient in generating literate primary learners. Blog (1970) argues that such schooling lacks in ability to improve the nation's wealth and human capital. Therefore, some reason that the country does not profit from the rise of human capital through education; but that, rather, the people of Bangladesh largely benefit from international aid donations infiltrating both the primary education system, and the economy (Drewes, 2003).

5.2.1 BRAC

In recent history, there have been successful education programmes that have broken away from rigid, conventional methods of managing education, succeeding with very limited resources in environments that are generally disregarded as not being conducive to innovation (Haiplik, 2003). Indeed, in Bangladesh, many have realised that a comprehensive 'blueprint' for education, as applied by the GoB, is often inappropriate in successfully educating primary-aged children. Lessons learned from large NGOs delivering education can provide clues about how to provide high quality, equitable basic education to all primary-aged children.

Formerly known as the Bangladesh Rural Advancement Committee, BRAC is currently the largest indigenous nongovernmental organisation in the world, which exhibits a unique system of teaching in terms of both teacher-training programmes, as well as classroom techniques (Haiplik, 2003). BRAC's objective is to develop a replicable primary education model that supplies children with the five-year GoB primary curriculum in only four years, and provides basic literary and numeracy skills to the poorest children untouched by the formal system (Haiplik, 2003). Specifically, girls are most in need of an effective education system.

Almost all of BRAC's instructors are women from rural villages who have at least nine years of schooling (White, 2005, interview).[13] Instead of focussing on long certification programs that last for up to two years, such as the government's Certification in Education (C-i-E) program, BRAC's teachers spend only twelve days in initial basic teacher training before beginning to teach in a first grade, multi-age classroom (Haiplik, 2003). These individuals then take part in monthly refresher courses and BRAC education programme staff closely supervises them (Kumar Das, 2005, interview). Haiplik (2003) and others suggest that such a system delivers education that is equal to, and even surpasses the education provided by the formal government-funded public primary school system because it provides students with practical education. NGO-facilitated education is argued to relate to current life experiences and environmental experiences in Bangladesh, visual and participatory learning, and contributes to a higher number of graduates with understanding of required primary competencies (Haiplik, 2003; White, 2005, interview). BRAC students finish primary school with 70 per cent comprehension of basic competencies, compared to about 50 per cent of GoB school graduates (Sunkontomarn, 2003). The government

[13] BRAC's female-geared hiring scheme is highly contested, especially considering that the GoB strives to maintain equal hiring by gender in its schools. Yet, an analysis of the Bangladeshi job sector reveals that rural and village men are more likely to migrate to large city centres to seek employment, leaving village women with little opportunity to further their own economic freedom. BRAC's aim is to support individuals, including women, who have limited employment options (Kumar Das, 2005, interview).

public primary school system exhibits rote-learning and memorisation techniques, which many education experts claim is inadequate in teaching young children (Haiplik, 2003; Kumar Das, 2005, interview; Mattingly, 2005, interview). Over seventy per cent of BRAC's students are girls, and poor families are specifically targeted.

Haiplik (2003) argues that effective management is the key to BRAC's success. The organisation's current mandate is to provide primary education at the grassroots level to the poorest children in most areas of the country, thereby strengthening and supplementing the government's universal primary education program. Dissimilar to GoB primary education programs, BRAC receives praise for addressing education problems of poor and rural communities, showing that poverty and gender are not necessarily obstacles to primary education (Haiplik, 2003). The program has also shown that paraprofessional teachers who are quickly, yet thoroughly trained can be effective in delivering quality, equitable education.

5.2.1.1 Financing, Monitoring and Management

BRAC and other non-formal schools are able to experiment with a variety of delivery mechanisms in teaching disadvantaged children (Sunkotomarn, 2003). The GoB also provides the appropriate facilities for non-formal primary institutions, and aims to use non-formal education as a schooling alternative for the poor, dropouts and girls.

As with GoB primary schools, at the individual level of BRAC schools are SMCs and PTAs. SMCs consist of three parents, one community leader, and the sole teacher of the school (Sunkontomam, 2003). Teachers are closely supervised, and parents are encouraged to involve themselves in school planning and management through these groups (White, 2005, interview). For instance, many children attending BRAC schools come from subsistence-based families, who require the labour of all family members during peak crop planting and harvesting seasons. By involving themselves in school calendar and schedule design, parents can ensure that their children do not miss classes during peak farming seasons.

BRAC regards itself as running centres that are supplementary, rather than parallel to the GoB schools system (Archer, 1994), yet the level of coordination with the government schooling system is perhaps "less than ideal" (Archer, 1994, p.225). There is coordination to some extent at a national level, but at a local and regional level, dialogue between the two organisations is rare. It has been recommended that the GoB schooling programmes can learn from BRAC's system of teacher-training, and that a formal working relationship between the GoB, BRAC, and other NGOs with education programmes be formed to stimulate an environment of sharing and

cooperation in order to achieve EFA by 2015 (Haiplik, 2003; White, 2005, interview). Important to note is that BRAC's ultimate goal is to act as a training ground for all primary teachers, as opposed to taking students away from the public primary school system (White, 2005, interview).

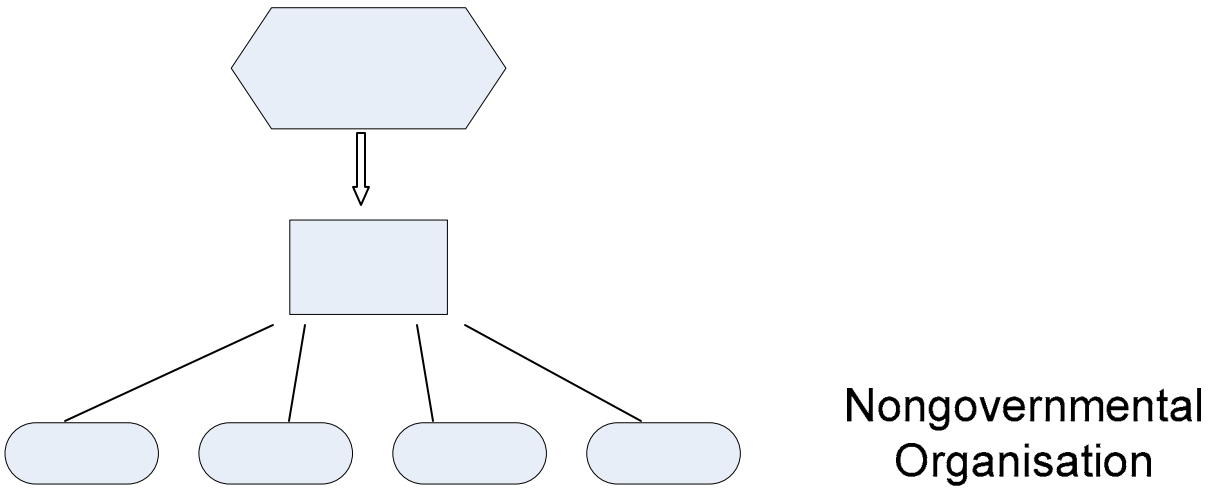
5.2.2 CAMPE

Formed in 1991, the Campaign for Popular Education Bangladesh (CAMPE) is a coalition of 703 major NGOs working in the area of education, whose primary objective is to start up a popular education movement in Bangladesh (CAMPE, 2003; Kumar Das, 2005, interview). CAMPE works closely with the GoB as well as other lobby groups to encourage participation of all necessary stakeholders and actors in the formal (government) and non-formal (non-government) education movement. Essentially, CAMPE forms a link between the GoB, NGOs, community members and donor agencies (Kumar Das, 2005, interview), and is recognised by UNESCO as a chief institution for basic education in Bangladesh.

The organisation's primary focus is the promotion of quality education at all learning levels, and for all learners (including girls, ethnic and linguistic minorities and physically and mentally disabled people), and to link quality education with other development interventions. CAMPE acts as an advocate to influence government and donors on behalf of quality education.

Considering its national slogan, "Advocacy, Networking, Lobbying, and Self-Mobilization" CAMPE, through annual 'Education Watch Reports', promotes the capacity of NGOs and donors working in the education sector. This, in turn challenges GoB educational output processes, and forces the national government to rethink and re-evaluate educational policies and statistics regarding literacy and un-enrolled student rates, student and teacher performance scores, and the quality of learning material and teacher-training practices (Kumar Das, 2005, interview).

Figure 2: CAMPE-Suggested Teacher Supervision Model



(Source: Kumar Das, 2005, interview)

During an elite interview, an employee of CAMPE suggested the above teacher training and supervision model as an effective alternative to current GoB practice. This model is analogous to the BRAC model discussed in section 2.6.2. Figure 2 illustrates what CAMPE believes to be a highly effective model that ensures quality in teaching. Teacher supervisors, or head teachers, who are highly educated (usually at a foreign university), including a GoB Certificate in Education, are responsible for a core number of schools and teachers within a district or sub-district (upazila). Responsibilities include close supervision of schools and teachers, and the provision of teacher curriculum and lesson plans. The supervisors are also responsible for visiting each school many times per six-day school week, and act as liaison between the NGO regional or national office. They also respond to any concerns or queries teachers may have regarding any aspect of teaching. Similar to the BRAC model, classroom teachers would have very limited training (usually only ten day training sessions), but are continually given in-service training.

According to Kumar Das (2005, interview), aside from BRAC, such models of supervision do not exist in GoB schools due to lack of manpower and resources. Consequently, loose supervision of teachers contributes to poor teacher-motivation and quality of education in GoB primary schools. CAMPE aims to repair such management and administration weaknesses within the primary education sector.

5.3 Private Primary Schools

About 20 per cent of all primary schools are privately operated. These registered non-formal primary schools, or private primary schools, capture a significant measure of all children attending primary schooling in Bangladesh, and require affiliation with government regional boards of education (World Education Profiles, 2004). In 2003, there were about half as many private, registered primary schools in the nation as public, government primary schools.[14] Such schooling is not free; charging tuition, school supply, and uniform fees, and is often not available for the common Bangladeshi family to utilise.

5.4 Islamic Schools

Madrasas, or Islamic schools, capture a large component of primary education in Bangladesh. Argued to be due to the ailing public education system, Bangladesh's madrasa sector has "mushroomed" (Ahmed, 2005, para. 10), reaching an estimated 64,000 from approximately 4,100 in 1986.[15] According to Benoliel (2003) the strength of madrasas is that unlike their GoB counterparts, they are highly accessible. Madrasas are often located near neighbourhoods, which have high levels of poverty – areas where GoB primary schools are generally not located – and are community-based. In general, madrasas are more affordable than GoB primary schools, even though most madrasas are formally registered with and receive funding from, and are formally registered, with the GoB.

Although many parents still send their children to public primary schools, literature suggests a growing trend in sending children to madrasas (Benoliel, 2003). This may reflect a lack of access to GoB schools (both economically, as well as geographically), or the educational preferences of parents, as the majority of parents and guardians in Bangladesh place importance on religious studies. In fact, it is argued that in many areas of Bangladesh (especially in rural areas), the primary parental motive for enrolling children in Islamic schools is to take advantage of the only educational opportunity for their children because there are no local secular schools or that those which are secular are unaffordable (Benoliel, 2003). While many Islamic schools teach only religious subjects, others combine religious studies with the entire GoB curricula or a few secular subjects. Benoliel (2003) asserts that "while many Muslim parents who send their children to Islamic schools place a high value on the benefits of a religious education, they also

[14] As mentioned on page 8, the Bangladesh Bureau of Educational Information and Statistics (2005) reported 37,671 public primary and 19,428 private primary schools in 2003.
[15] It is also argued that the rise in madrasa enrolment has accompanied the rise of militant Islam (Ahmed, 2005).

want to ensure that their children receive the kind of education that will prepare them for employment in the country's labour market" (p.16). Madrasas seemingly present both the above conditions to parents. Additionally, some madrasas offer free boarding, which is particularly attractive to poor parents and students who cannot afford to attend public school.

6 Challenges within the Primary Education Sector

This section describes some of the challenges within the primary education sector in Bangladesh. Section 6.1 focuses on teacher quality, while section 6.2 focuses on the increasing reliance of tutors by primary learners. Hypotheses and theories obtained from literature assist in explaining poor educational outcomes within the Bangladeshi primary education sector. This evidence is later used in examining hypotheses incorporated into the current case study: primary education and quality in Sector 4, Uttara Model Town.

6.1 Quality

As with all education sectors, teacher salaries represent the largest portion of primary education spending. Consequently, some stress that the GoB should optimise this investment by ensuring that funds are spent towards ensuring the development of high quality primary teachers through more effective teacher-training programmes (ADB, 1997) within all types of primary schools. There are vast differences in teacher qualifications, training, experience, and incentives in different types of primary schools. For example, 95 per cent of teachers in public primary schools are trained (which includes a one year Certificate in Education [C-i-E]), with considerable experience, while only about 10 per cent of teachers in other primary schools have any training at all (ABD, 1997).[16] The Asian Development Bank, in their 2002 survey of primary school principals (2002) found that 82 per cent of principals of rural primary schools and 100 per cent of principals of urban primary schools believe that their teachers lack aptitude, motivation and acceptable knowledge in subjects that they teach.

Although primary student dropout rates could be due to many factors, including poverty, social norms and customs, and large distances separating schools from homes, UNICEF (2006) maintains that it is the poor quality of education, which adversely affects enrolment rates of all children.

[16] Sources indicate that as Bangladesh strives to achieve Education for All by 2015, higher rates of enrolment in primary education will exacerbate these differences in teacher quality and experience (ABD, 1998).

> "Girls' net enrolment in 2003 [was] 84 per cent [… yet] 10 per cent of girls and 15 per cent of boys of the primary school age group have never been enrolled in school, and the *poor quality of education is reflected in poor attendance, high repetition rates, high drop-out rates* (37 per cent for girls and 38 per cent for boys) and low achievement" (UNICEF, 2006, para. 2; emphasis added).

Teachers are not encouraged to practice active-learning techniques such as using visual aids, singing, dancing, and teacher-student dialogue; thus, rote-learning practices including learning through memorisation, continue despite being highly contested (ABD, 1997; Kumar Das, 2005, interview). In addition, the short contact time between teachers and students contributes to low scholastic achievement (ADB, 1997). For instance, CAMPE (2005) estimates that more than forty per cent of children complete the primary schooling cycle without acquiring full knowledge of all taught subjects, contributing to the 67 per cent of children who grow up without basic literacy, numeracy skills, and life preparation. Poor teacher training programmes likely contribute to poor student achievement.

Literature suggests that although GoB teachers attain higher levels of education and formal teacher training, their NGO counterparts are more equipped to provide high quality education to pupils. It is commonly maintained that if GoB teachers were trained using similar methods that NGO-run schools such as BRAC use, including effective training that: (1) prepares teachers for classroom challenges; (2) provides pre-service training; (3) provides constant, hands-on supervision and refresher courses; and (4) focuses on teaching practices, rather than theory, student attendance, retention, and performance rates would improve. Table 1 illustrates key differences between the GoB and BRAC systems of delivering primary education.

Table 1: Comparison of BRAC-trained and GoB-trained Teachers

NGO (BRAC) TRAINED TEACHERS	GOB TRAINED TEACHERS
Teachers must have SSC (grade 9 equivalent) or HSC (grade 10 equivalent) formal education	Teachers have advanced (BA) degree, post secondary level formal education[17]
Teachers must visit/observe a BRAC school in their area for at least 3 days before attending BRAC basic training course	Teachers begin teaching as soon as they are hired without any pre-service training
Teachers attend an intensive 12 day pre-service training course	Within the 1st year of service, teachers attend a one year C-i-E in-service course at a Primary Teacher Training Institute
Teachers have constant supervision (minimum 2 days out of 6 day weekly visits from BRAC officials)	Teachers have limited and sporadic supervision
Participatory refresher course (monthly, needs-based training)	Refresher course after every 3 months (not necessarily needs-based)
Training is based heavily on practice, and is light on theory	Training based heavily on theory and light on practice

(Source: Haiplik, 2003).

The above model provides an explanation for the advanced academic level of BRAC's primary school graduates, who have lower drop out levels than GoB students, and who are increasingly receiving GoB high school entrance scholarships (White, 2005, interview). Essentially, NGO-run primary schools exhibit needs-based models, continuous teacher supervision, and "efficient" training times (Haiplik, 2003; Kumar Das, 2005, interview). These factors presumably contribute to the foundation of better-equipped teachers in terms of classroom management, teaching style, and awareness of the educational preparation of children.

6.2 Increasing Dependence on Tutors

Literature and elite interviews maintain that many parents are doing more than keeping their children in school; they are hiring tutors (Kumar Das, 2005, interview; Sultan and Bould, 2004). Both Kumar Das (2005) and Sultan and Bould (2004) indicate that hiring a tutor for children has regularly been a customary practice in the urban middle class and for those who can afford to send their children to private school, but recently poorer families have begun to hire tutors for their primary-aged schoolchildren as well. It is indicated that even for the 'hard-core poor' hiring a tutor may be the only way to ensure that their children receive adequate help with schoolwork; as parents are often illiterate, and teacher quality is charged with being inadequate (Behrman et al., 2002; Kumar Das, 2005, interview). Specifically, CAMPE found that 43 percent of children were using private tutors (Ahmed and Nath, 2005). These individuals are largely

[17] Although primary teachers should hold an advanced university degree, it is debatable that all GoB primary school teachers hold a bachelor's degree, as corruption within the sector likely contributes to the selling and purchasing of university degrees by university employees, and potential teachers.

children's teachers, who tutor students after-hours in order to supplement poor salaries (Ahmed and Nath, 2005). Due to low-quality teachers and curriculum, parents take on increased responsibility for the education of their children, which is a burden that is felt more heavily by lower classes.

Although public primary education is touted as being free for all, private tutoring is heavily relied upon. Due to poorly trained and unenthusiastic teachers, and high teacher absenteeism resulting in low contact time between teachers and students, private tutoring is necessary to prepare students for the public examinations that allow entry into secondary schools (Behrman et al., 2002).[18] A 1992 study of urban sectors of Bangladesh indicates that 65 per cent of children in public primary schools receive private tutoring. Costs for this extra scholastic assistance consume 43 per cent of the direct costs of education for parents surveyed (ADB, 1997). Subsequently, even in the absence of school fees, income likely will be a significant determinant of enrolments, especially as children graduate from primary schools, and attempt to enter secondary schooling.

[18] In their evaluation of teacher-student contact times, Tietjen et al. (2004) found that teachers aim to take all twenty available days of leave available to them every year, teachers are known to be three to four hours late for school, and punishment for absent or late teachers is rare.

7 Current Study Methodology

Both qualitative and quantitative approaches comprise the analytical framework used to examine factors contributing to poor quality education of primary-aged children in Bangladesh. This section illustrates the methodology used to conduct an analysis of the state of primary education within the case study area, and includes elite interviews, a survey administered to parents of primary-aged children in Sector 4, Uttara Model Town, and a multinomial logistic regression performed on SPSS statistical software.

7.1 Elite Interviews

Elite interviews with employees and coordinators of BRAC, the Asian Development Bank, the United Nations Development Programme [UNDP], the United Nations Children's Fund [UNICEF], and the Campaign for Popular Education [CAMPE] were conducted in order to narrow down possible policy problems concerning primary education in Bangladesh.[19-20] Meetings with members of the Local Government Engineering Department [LGED] in Dhaka assisted in establishing and mapping out the case study area: *Sector 4, Uttara Model Town* (a socio-economically heterogeneous neighbourhood located 2.5 kilometres away from Uttara's commercial centre and situated north of Dhaka City). The number of children visually not attending school during regular school hours in the area provided an additional indication towards the problem of primary school attendance and retention rates in the neighbourhood.[21]

[19] Individuals from the Government of Bangladesh (Ministry of Primary Education) did not respond to emails requesting a meeting.
[20] See Appendix H for elite interview questions. These interviews were undertaken in August, 2005.
[21] Children are often seen on the roads in Uttara Model Town, either begging for food and money on the sides of streets, or working (as domestic helpers, rickshaw-pullers, and street vendors).

7.2 Survey Instrument

A survey of parents of primary-aged children in the case study area was conducted to assess the validity and application of hypotheses from literature and elite interviews in explaining poor performance of the Bangladeshi primary education sector. A multinomial logistic regression performed on data collected determined factors within the current primary school system that are of concern to parents, demographic differences between parents choosing different schooling options, and possible solutions to the status quo. Cross tabulations allowed for a preliminary examination and determination of statistical factors within survey data. Next, a forward stepwise regression using SPSS statistical software was conducted for exploratory purposes. Creation of the final model utilised forced entry regression techniques of the significant variables. Focus is placed specifically on factors inhibiting child attendance rates; school, teacher and environmental characteristics; and the type of school parents choose to enrol their children in.[22] Comparisons of the disadvantages and benefits of each different type of school are determined.[23]

The survey assists in establishing the impact of demographic and attitudinal characteristics on parental preference of school for primary-aged children. It took place in a selected area within Sector 4, Uttara Model Town; an area of Dhaka consisting of a heterogeneous population, in a suburb of Dhaka – the capital city of Bangladesh. See Appendix C for a map of the selected survey area.

Student researchers from The International University of Business, Agriculture, and Technology [IUBAT]; a private university located in Uttara, approached individuals on local streets and other public spaces and asked if they would complete a voluntary questionnaire. Questionnaires were completed *orally*, in Bangla, between researcher and respondent, as there is a high illiteracy rate in Bangladesh. The surveys and responses were originally composed and transcribed in Bangla, and later translated into English for research purposes. See Appendix A for the survey/questionnaire in Bangla, and Appendix B for an English version.

Parents and guardians of primary-aged children were selected to complete the survey – regardless of whether their children were currently enrolled in primary school. Researchers were provided with a map so that respondents could indicate their place of residence, as only respondents who resided within the selected case study area were asked to complete the survey.

[22] Schooling choice options include: government primary school, private primary school, BRAC-run primary school, madrasas, and other.
[23] Refer to Section 5 for an analysis of primary school options.

In addition, data regarding demographic information related to a respondent's gender, employment status, highest level of education achieved, and economic status was collected.[24] In general, respondents were eager to respond to questions, as most parents were concerned about their children's education and future. Researchers often came back with additional concerns and complaints about schooling relayed to them by the respondents and recorded on the questionnaires. I incorporate these additional comments into the analysis.

7.3 Multinomial Regression

A multinomial logistic regression analysis performed on data collected in the survey determines the impact of different factors on the probability parents choose to send their children to primary schools different from the GoB schools. These factors include preference of girls or boys being educated, age of child, education level and employment status of parent, socio-economic status, recipient of government stipends, quality of school, and relationship with teacher. The results are presented as coefficients of the probability of choosing one type of schooling option over another; the sign of the coefficient indicates the direction of the association.

7.3.1 Dependent Variable

The dependent variable in the study is the type of school parents send their primary-aged children to, if they do, in fact, send their children to school. Respondents were initially asked to reply to the question, "Does your child attend primary school?" If they answered "Yes", they then replied to the following question, "What type of primary school does your child attend?" Respondents could choose from the following: government primary school, BRAC-run school, private primary school, madrasa (Islamic school), and child does not attend primary school. Responses are coded (from zero to five) with zero (the reference category) being government public primary school.

[24] As I was unsure how to determine what constitutes an individual having economic security within Bangladesh, and whether a respondent should be placed at the lower end of the socio-economic spectrum, respondents were asked to indicate how many taka they spend on average per month on household items (food, clothing) and how many people live in their household (with the omission of domestic employees). The amount of money spent on household goods was then divided by the square root of household population, producing a final figure. These raw scores were initially run in a multinomial regression, then coded and scaled from zero to four, where zero indicates the lowest income respondents, and five indicates the wealthiest group of respondents.

It is worth noting that future study could focus on differences between parents who do send their children to school and those who do not. Such analysis may provide an indication of factors influencing parental choice of whether or not to send their children to school. Within the current study, only 12.9 percent of parents indicated that they do not send their children to any school. An analysis of differences between parents who do and parents who do not send their children to primary school was not included in the current study because of the small number of parents who responded that they do not send their children to school.[25] In order to more conclusively determine parental choice for sending children to school, a more extensive survey including a larger sample of parents who do not send children to school is needed.

7.3.2 Independent Variables

The independent variables used to predict parental choice of primary school are divided into three different categories: (1) self-reported behavioural; (2) attitudinal; and (3) demographic. Twenty-one variables are included in the study, eleven of which determine parental choice of primary school for their children. The remaining ten variables determine viable primary school policy options for residents of Uttara, Sector 4, in addition to demographic factors on attitudes towards girls' education and relationships with teachers. Selection of each variable was determined via elite interviews, literature reviews, and educational modelling. Expected hypotheses are generally consistent with findings from background sources and data.

Self-reported behaviour variables include:

- whether a child is involved in labour or work of any kind;
- whether or not the child requires the assistance of tutors in order to complete and understand material assigned in school;
- reasons for absence from school;
- whether the child has dropped out of school completely, and why;
- whether the parent is a recipient of a government stipend for sending his or her child to school; and
- whether or not the parent has opportunities to establish a relationship with his or her child's teacher (including parent-teacher interviews, curriculum design, and volunteering).

[25] A binary logistic regression of all who did sent their children to primary school versus all who did not send their children to primary school found no significant variables. The small sample size may account for insignificant statistical results.

Such variables are essential in determining details relating to performance of the different types of primary schools within Uttara, Sector 4.

Attitudinal independent variables explore parents' perceptions about the schools their children attend, as well as perceptions about education in general. Variables include:

- factors that would influence parents to send their children to school more often;
- whether or not educating girls is as important as educating boys;
- what level of schooling the parent wishes their child to complete;
- parental ratings of the physical structure of their child's school; and
- parental assessments of possible problems within their child's school.

Demographic characteristics are included in the study in order to determine if socio-economic status, and parental highest level of education completed has an impact upon choice of primary school. Variables include:

- gender;
- age;
- employment status;
- highest level of education received; and
- family economic status. [26]

Responses for all variables are coded and entered into SPSS software.[27]

[26] Refer to Appendix D for a Summary of Independent Variable Hypotheses.
[27] Refer to Appendix E for Code Book of survey responses.

8 Descriptive Survey Findings

The following section illustrates findings from the administered survey. Section 8.1 describes the objectives, while section 8.2 outlines characteristics of survey respondents, including choice of primary school for their child, age, employment status, highest level of educational attainment, and gender. Section 8.3 illustrates how respondents' economic status was determined.

8.1 Survey Objectives

There were several objectives to the administered survey. Key intentions are to determine the effects of independent variables on parental primary school choice, including: (1) determining the effects of poverty within schooling options on school attendance and retention rates; (2) the effects of teacher quality on student attendance rates; and (3) quality of school management and administration. In addition, the importance of female education among respondents and possible improvements to the status quo are determined using survey results.

8.2 Study Sample Characteristics

A total of 349 (199 male; 150 female) residents of the selected area participated in the survey between July 27th, 2005 and August 7th, 2005. The sample population's profile was compared to characteristics of the general population of Bangladesh.[28]

[28] Bangladesh Bureau of Statistics [BBS] information about the demographics of Bangladesh was used to compare the representativeness of the respondents to the populations of individuals residing within the selected case study area. See Appendix I for a more descriptive look at sample population representativeness. It is important to note that demographic data regarding the total population characteristics of Sector 4, Uttara Model Town are not available.

Table 2: Characteristics of the Study Sample (per cent within school choice)

		Parents whose children attend…				Parents who do not send children to school (%)
	Total Participants (% of total)	**Public Primary School (%)**	**BRAC school (%)**	**Private Primary School (%)**	**Madrasa (%)**	
Count (per cent within total responses)	**349**	**123 (35)**	**39 (11.1)**	**126 (36)**	**17 (4.8)**	**44 (12.6)**
Gender						
Female	150 (43)	52 (42.2)	16 (41)	63 (50)	2 (11.8)	17 (38.6)
Male	199 (57)	71 (57.7)	23 (59)	63 (50)	15 (88.2)	27 (61.4)
Age Group						
18-24	14 (4)	6 (4.8)	1 (2.6)	2 (1.6)	0 (0)	5 (11.4)
25-34	102 (29.2)	34 (27.6)	10 (25.6)	42 (33.3)	4 (23.5)	12 (27.3)
35-44	155 (44.4)	51 (41.5)	17 (44)	65 (52)	4 (23.5)	18 (40.9)
45-54	60 (17.2)	23 (18.7)	8 (20.5)	13 (10.3)	9 (52.9)	7 (15.9)
55-64	18 (5.2)	9 (7.3)	3 (7.7)	4 (3.2)	0 (0)	2 (4.5)
Education Level[29]						
Primary	63 (18.1)	26 (21.1)	6 (15.4)	22 (17.5)	1 (6)	8 (18.2)
Secondary	92 (25.4)	28 (22.8)	6 (15.4)	43 (34.1)	10 (58.8)	5 (11.4)
College degree	65 (18.6)	16 (13)	4 (10.3)	42 (33.3)	2 (11.8)	1 (2.3)
Graduate degree	86 (25)	39 (31.7)	20 (51.3)	13 (10.3)	4 (23.5)	10 (22.7)
Trades certificate	6 (1.7)	1 (0.1)	0 (0)	2 (1.6)	0 (0)	3 (6.8)
No level of education	37 (10.6)	13 (10.6)	3 (7.7)	4 (3.2)	0 (0)	17 (38.6)
Employment Status						
Full-time	68 (19.5)	20 (16.3)	7 (18)	32 (25.4)	5 (29.4)	4 (9.1)
Unemployed*	86 (24.6)	24 (19.5)	13 (33.3)	39 (31)	1 (6)	9 (20.5)
Self-employed	89 (25.5)	38 (30.9)	8 (20.5)	28 (22.2)	6 (35.3)	9 (20.5)
Part-time	62 (17.8)	20 (16.3)	6 (15.4)	23 (18.3)	5 (29.4)	8 (18.2)
Seasonal	27 (7.7)	18 (14.6)	3 (7.7)	3 (2.4)	0 (0)	3 (6.8)
Rickshaw puller	15 (4.3)	3 (0.2)	2 (5.1)	0 (0)	0 (0)	10 (22.7)
Other	2 (0.6)	0 (0)	0 (0)	1 (0.1)	0 (0)	1 (2.3)
Economic Status						
Lowest value to 0.5 * median	88 (25.2)	33 (27))	14 (35.9)	11 (8.7)	3 (17.6)	27 (61.4)
0.5 * median to median	82 (23.5)	33 (27)	10 (25.6)	27 (21.4)	4 (23.5)	8 (18.2)
Median to 1.5 * median	90 (25.8)	32 (26)	7 (17.9)	40 (31.7)	6 (353	5 (11.4)
Over 1.5 * median	89 (25.5)	25 (20.3)	8 (20.5)	48 (38.1)	4 (23.5)	4 (9.1)

* Figures include stay-at-home mothers who were conservatively classified as unemployed.

[29] The education levels of survey respondents are high when compared to the general education level of the total population of Bangladesh.

Table 2 illustrates characteristics of the study sample. Of the total respondents, 43 per cent were female, while 57 per cent were male. Survey results indicate that private and public primary schools are respectively the first and second preferred choices among respondents. Respondents who chose to pay for private schooling for their children were more likely to be employed full-time (32 respondents, or 9.2 per cent of total respondents) and have higher levels of education than parents who chose other schooling options. Of respondents choosing GoB public primary schools, 31.3 per cent have obtained a graduate degree, and 10.9 per cent are self-employed.

Interestingly, 51.3 per cent of respondents who chose BRAC – largely known and utilised as a free schooling option for poor and hard-to-reach families – as a schooling option for their child/children have obtained a graduate degree. These findings are consistent with literature. According to Sunkotomarn (2003) about half of children enrolled in BRAC schools do not belong within the target group of poor and disadvantaged children, drop-outs, and girls. Results indicate that BRAC-facilitated primary schooling is not only utilised by poor families, but is also a trusted educational institution of parents who may be economically able to send their children to public or private schools.

8.2.1 Economic Status

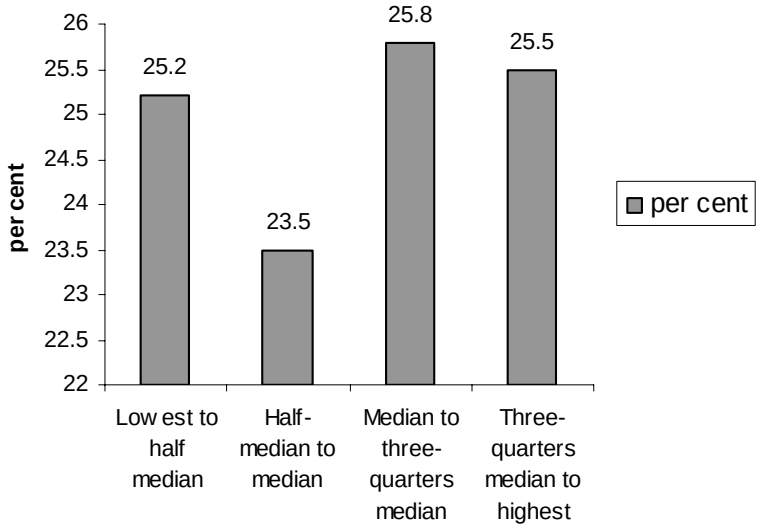
As previously mentioned in Section 6.2, respondent economic status was determined through a mathematical division of household weekly expenditure by household population. Raw values were entered into statistical software. Values were then categorised and named according to economic level in terms of all respondents.

The categories and scores are shown in Table 3 and the distribution of survey respondents' economic status are provided in Figure 3. The median economic value for survey respondents is 1099.3.

Table 3: Economic Status, Category Names, and Economic Values

Category Name	Economic Values
Lowest value to 0.5 * median	83.3-549.65
0.5 * median to median	549.66-1099.33
Median to 1.5 * median	1099.34-1648.94
Over 1.5 * median	1648.95-2517.7

Figure 3: Respondent Economic Value Distribution



8.3 Descriptive Survey Analysis

This section describes the main findings of the administered survey. Each sub-section explores relevant variables when compared to the dependent variable, parental primary school choice. Discussion is provided regarding each variable's impact on the determination of school choice. Cross tabulations bearing importance include parental responses regarding poverty and the need for child employment, teacher quality, importance of female education, and individual school management and administration.

8.3.1 Poverty and the Need for Child Employment

Descriptive statistics and cross tabulations performed by SPSS software reveal that poverty, the need to have as many family members as possible in the labour market, and school fees have an impact on parental school choice of school and child attendance rates.

Figure 4: Primary School Choice and Child Employment Status (per cent within school choice)

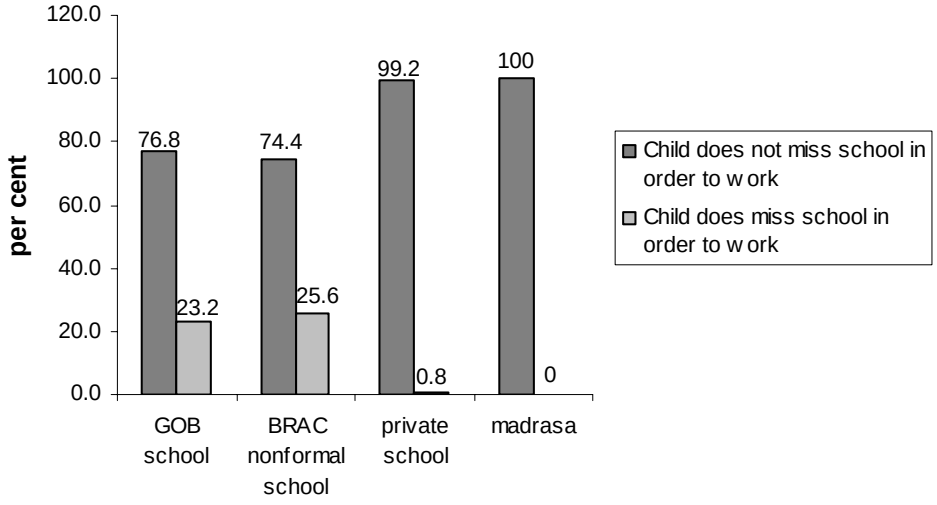


Figure 4 demonstrates that although most believe that BRAC schools target the lowest-income families, children who attend GoB public primary schools are also likely to miss school because of employment and income-earning commitments. While the percentages within each category of school are similar, the absolute numbers tell a more striking story. 26 children enrolled in GoB public primary schools (23.2 per cent of responses within GoB category) miss school in order to earn money for their family, while 10 children who attend BRAC schools (25.6 per cent of respondents within BRAC category) miss school for the same reason. Such results may indicate that when schooling (including all supplies and tuition fees) is completely free – as is with BRAC-facilitated schools – families have less need than those sending children to GoB schools to send their children to work. Literature maintains that many children attending GoB public primary schools work in order to pay for schooling (uniform fees, 'hidden' teacher (bribe) costs, and school supplies) (OECD, 2003). The above results contribute to arguments maintaining that in order to remain educated, children attending GoB public primary schools are often required to earn money to pay for their education. Results indicate that poor families may require monetary compensation in order for their primary-aged children to attend school.

In addition, descriptive statistics reveal that 25.2 per cent of children who attend GoB public primary schools miss school due to family financial difficulties, while 20.5 per cent of children who attend BRAC schools miss school for the same reason. In this case, hidden fees for attending a GoB public primary school are likely a reason why children miss school. Essentially, in indicating that schooling which is completely free (as is the case with BRAC-facilitated primary schools) will demonstrate higher student retention rates, results concur with elite

interview data (White, 2005, interview). Furthermore, 16.3 per cent of children who attend GoB schools, but have had to drop out of school in the past, did so for financial reasons.

8.3.2 Teacher Quality

Consistent with literature, as well as elite interview data, teacher quality is a concern for parents of primary-aged children.

Figure 5: Primary School Choice and Teacher Quality Influence (per cent within school choice)

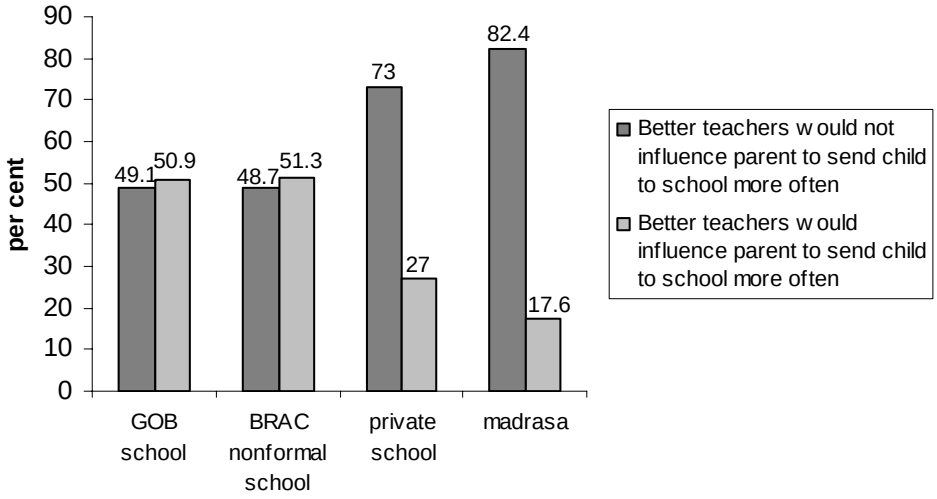


Figure 5 illustrates the different views on teacher quality depending on the parent's choice of school for their children. 63 respondents (50.9 per cent within category) whose children attend GoB public primary schools revealed that better teachers would influence them to send their child to school more often. Moreover, 51.3 per cent of respondents with children enrolled in BRAC-facilitated schools responded similarly. Although there are plentiful articles and manuals supporting BRAC schools and the adequate teachers BRAC training programmes generate (see Ahmed and Nath, 2005; CAMPE, 2000; CAMPE, 2001; Drewes, 2003; Haiplik, 2003), current results support a thorough investigation into the celebrated BRAC method of teacher-training, which consists of 12 day initial training programmes. Additionally, 70.5 per cent of parents who currently do not send their children to school responded that better teachers would influence them to enrol their child in school. Along similar lines, descriptive statistics reveal that 60.2 per cent of parents with children enrolled in GoB public primary schools believe that poor teacher quality is a problem in their child's school, while 46.2 per cent of parents with children enrolled in BRAC

schools believe that poor teacher quality is a problem in their child's school. This result supports the objective of this study. It is obvious that teacher *quality* is a concern for parents, thus efforts to improve the *quality* of inputs to the primary education system are of great importance.

8.3.3 Importance of Female Education

In accordance with recent literature concerning the importance of female education, most survey respondents realise the significance in educating all children; including girls.

Figure 6: Importance of Educating Girls (per cent within school choice)

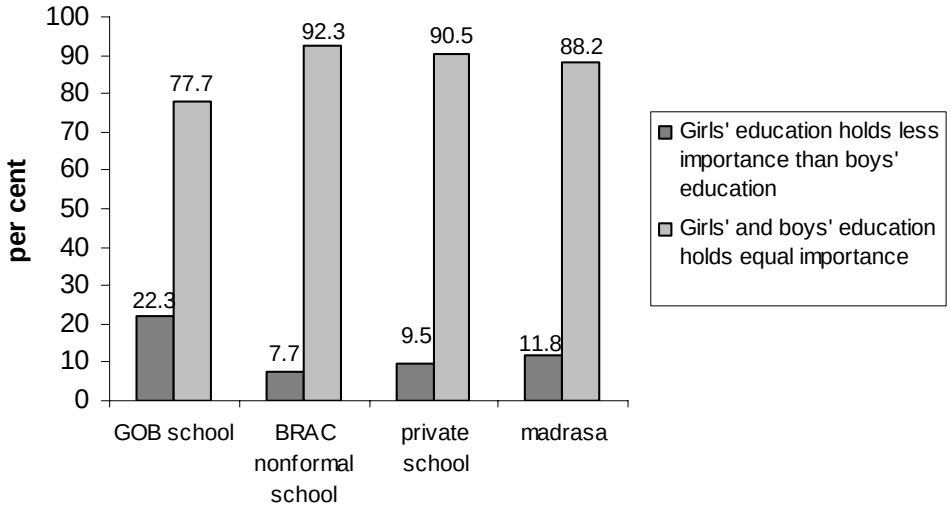


Figure 6 shows that the majority of all respondents believe that educating girls is of equal importance as educating boys. Such evidence refutes literature, such as that of McCauley et al. (1994) which states that parents in Bangladesh are more likely to educate boys.

8.3.4 School Management and Administration

As previously revealed in section 5.1.1 and 5.2.1, along with the management operation of the DPE and the MoE, schools in Bangladesh have school management committees as well as parent-teacher associations, which are comprised of teachers, parents, guardians, and elite members of the community. Although formation of the parent-teacher associations (PTAs) and school management committees (SMCs) is to allow parents to become involved in individual school activities, curriculum creation, and schedule planning, the formation of such groups seems to be futile in GoB public primary schools. Survey results reveal that of respondents who send

children to GoB public primary schools, only 30.9 per cent are aware of the roles and responsibilities of PTAs and SMCs, while 29.3 per cent are not aware of the two groups, and 39.8 per cent were unsure. These figures are in sharp contrast to those of private primary schools, in which 63.3 per cent of respondents were aware of the roles and responsibilities of the PTAs and SMCs, 30.2 per cent were unsure, and only 5.6 per cent responded that there were unaware of roles.[30]

Figure 7: Poor School Management and Administration (per cent within school choice)

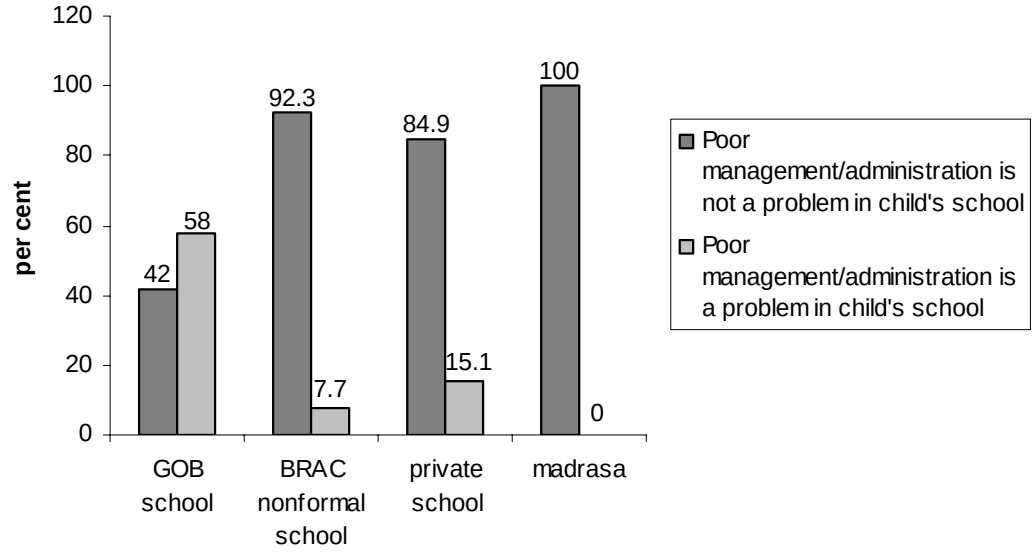


Figure 7 illustrates that poor management and administration of schools in general is deemed problematic by parents of GoB public primary school students. 54 per cent of parents who send their children to GoB public primary schools (16 per cent of all respondents) believe that poor management and administration is a problem in their child's school, while only 15.1 per cent of parents utilising private primary schools (5.4 per cent of all respondents) feel similarly. Unpredictably, due to their lack of on-site administration offices and quickly trained teachers, only 7.7 per cent of respondents who send their children to BRAC-run schools (a slight 0.9 per cent of all respondents) felt there were problems with the school management and administration within their child's school.

Lastly, contrary to literature calling for an increase in the number of teachers within primary schools (which would result in lower teacher-student ratios in classrooms) descriptive

[30] See Appendix K for survey cross tabulation results.

statistics reveal that providing schools with more teachers was not a great concern for most respondents. Literature maintaining that high teacher-student ratios in Bangladesh is reason for poor student performance and poor parent opinions of schools is not consistent with primary survey data of the case study area.[31] This finding lends further support for the importance of the current study. A focus on the *quality* of the primary education sector should carry the utmost importance over factors such as classroom space and teacher-student ratios, as parents and guardians are not concerned about the latter issues.

[31] Refer to Appendix L for survey cross tabulation survey results.

9 Regression Analysis Findings

The following section describes multinomial logistic regression findings associated with the administered survey. Section 9.1 describes responses considered in statistical analyses, and reveals the independent variables with predictive power in determining parental choice of primary school. Section 9.2 provides a comprehensive list of expected relationships between independent variables and school choice. Section 9.3 illustrates multinomial logistic regression findings of significant variables in the equation. Section 9.4 provides a discussion of and establishes comprehension of the above findings, identifying the impact that significant variables have on school choice. Section 9.5 outlines limitations within the administered survey.

9.1 Multinomial Logistic Regression

A small percentage of respondents (12.9 per cent) indicated that their children did not attend school. Therefore, of the 349 survey respondents, responses from only those whose children are currently enrolled in primary school were included in regression analysis (n=305). A multinomial logistical regression performed on survey data indicates that eight independent variables that have predictive power in determining the probability that an individual will choose a particular type of schooling for their children over all other options: [32]

- if a child misses school in order to earn money for their family;
- if a child misses school because their school is located too far from the home;
- if better teachers would influence the respondent to send their child to school more often;
- if there is a problem with teachers in the child's school;
- if poor administration and management are a problem in the child's school;
- the amount of money the respondent pays a tutor for their child; and

[32] Multinomial regressions are used to analyse relationships between a non-metric dependent variable and independent variables, and compares multiple groups through a combination of binary logistic regressions. Essentially, predictor variables are assessed by SPSS software in order to determine if splitting the sample based on these predictors results in a more certain discrimination in the dependent measure.

- the respondents employment status [33-34]

Multinomial regression requires that the minimum ratio of valid cases to independent variables be at least 10 to 1 (Schwab, 2005). The ratio of valid cases (305) to number of independent variables (8) is 38.1 to 1, which is equal to or greater than the minimum ratio. Therefore, the requirement for a minimum ratio of cases to independent variables was satisfied using this model.

[33] It must be noted that regression analysis results are only applicable to this case study sample and not the general population of Sector 4, Uttara Model Town, or the Republic of Bangladesh.
[34] See Appendix L through O for a detailed summary of model suitability.

9.2 Data Hypotheses

Selection of independent variables is based on background research and data collection methods.

Table 4: Independent Variable Hypotheses

Variable	Hypothesis	Rationale
Child misses school in order to earn money for family	Children who miss school in order to earn money for family are more likely to be enrolled in GoB public primary school.	Literature[a], elite interviews
Child misses school because school is located far from home	Children who miss school because the distance between their home and their school is too great are more likely to be enrolled in GoB public primary school.	Elite interview[b]
Inclusion of better teachers would influence respondent to send child to school more often	Respondents who would send their children to school more often if better teachers were provided are more likely to send their children to GoB public primary schools.	Literature[c]
Problems with teachers in child's school	Respondents who believe there are problems with the teachers in their child's school are more likely to have children enrolled in GoB public primary schools.	Elite interview[d]
Poor administration and management are problems in child's school	Respondents who believe that poor administration and management are problems in their child's school are more likely to have children enrolled in GoB public primary schools.	Literature[e]
Paying a tutor to assist with child's schoolwork	Respondents who hire a tutor to assist children with schoolwork are less likely to send their children to GoB public primary schools.	Literature, elite interviews[f]
Employment status: full-time, part-time, self-employed, seasonal worker, unemployed	Respondents engaged in full-time work are less likely to send their children to GoB public primary schools. Respondents engaged in seasonal work or who are unemployed are more likely to send their children to BRAC schools.	Literature[g]
Influence of government stipend for sending child to school	Respondents who would be influenced by a government stipend to send their child to school more often are more likely to have children enrolled in GoB public primary schools.	Literature[h]

(Sources: a) OECD (2003); b)Tarik-ul-Islam (interview,2005); c) Haiplik (2003); d) Kumar Das (2005); e)Behrman et al. (2002); f) Sultan and Bould (2004), Kumar Das (interview,2005); g) Ahmed and Arends-Kuenning (2003); h*) Tietjen (2003))*

The above table indicates the expected relationship independent variables that are statistically significant have with the dependent variable – primary school choice. The hypotheses are derived from the literature reviews and elite interview data.

9.3 Regression Findings

This section shows independent variables that have power in predicting what type of schooling option parents are likely to choose for their primary-aged children, and offers a systematic guide for reading multinomial regression analyses. Organised according to whether or not the independent variable supports hypotheses listed in table 4, subsections 9.3.1 and 9.3.2 describe the probability power each significant independent variable has on the dependent variable – parental primary school choice.[35]

[35] The following variable hypotheses and interpretations are stated in the negative due to the nature of survey question wording (i.e., is teacher quality a problem in your child's school?). It is not possible to remove the double negative nature of the wording without incorrectly interpreting survey responses.

Table 5: Parameter Estimates of Significant Variables in the Equation

What type of primary school does your child attend?(a)	Variable	B	Sig.	Exp(B)
Variables that Support the Hypotheses				
BRAC Run school				
	Distance between school and home does *not* cause child to miss school	1.480	.046*	4.395
	No problem with administration and management within child's school	2.591	.000**	13.342
	Employment Status: Self-Employed	-3.170	.029*	.042
Private Primary School				
	Child does not miss school in order to earn money for the family	1.074	.010*	15.685
	Distance between school and home does *not* cause child to miss school	1.331	.034*	3.786
	No problem with administration and management within child's school	1.491	.000**	4.443
	Receiving a government stipend would *not* influence respondent to send child to school more often	1.191	.004**	3.290
Madrasa				
	Better teachers would *not* encourage parent to send child to school more often	1.679	.024*	5.361
Variables that do not Support the Hypotheses				
BRAC Run School				
	Employment Status: Seasonal Worker	-3.511	.027*	.030
Private Primary School				
	Respondent pays a tutor between 251 and 550 taka per month to assist with child's schoolwork	1.755	.002**	5.783
	Respondent pays a tutor between 551 to 850 taka per month to assist with child's schoolwork	1.600	.009*	4.954
	Respondent pays a tutor 850+ taka per month to assist with child's schoolwork	2.333	.000**	10.313
	Better teachers would *not* encourage parent to send child to school more often	.734	.028*	2.083
	Teachers are *not* a problem within child's school	1.060	.003**	2.886

(a) The reference category is: government formal primary school.

*p<0.05, 95 per cent significance; **p<0.005, 99 per cent significance

The multinomial regression tested all eight variables; however, table 5 shows only the results of significant variables. Refer to Appendix P for detailed estimation methodology. The above table displays independent variables within the model, which are significant in distinguishing categories of the dependent variable from the reference category – GoB public primary school – at 95 and 99 per cent significance ($p<0.05$, $p<0.005$). The significance level indicates the probability of a false rejection of the null hypothesis. A significance level of 95 percent means that the result is due to chance only five out of 100 times. This analysis considers significance levels of 95 percent confidence or greater. The odds of being in the group of respondents who choose all other schooling types are determined by subtracting 1 from the Exp

(B) value.[36] GoB public primary schools are the reference category of the dependent variable in the regression. This means that all of the other subcategories (all other schooling options) are interpreted against this category.[37]

Although several sources insist that key problems within the Bangladeshi primary school system are high student teacher ratios and large classes, which inhibit child learning, according to regression analysis, this was not a statistically significant variable in determining parental concerns parents about different forms of primary schooling.

The following analyses place focus on the role of significant independent variables upon school choice. Throughout each analysis, it is imperative to recall that all regressions and log likelihoods are compared within the reference category: GoB public primary schools. A useful method of interpreting multinomial regressions is as follows: First, interpret each statistically significant independent variable in terms of significance to its independent variable reference category (for example, children who are not employed, compared to children who are employed). Second, interpret the former significance level within its specific category of the dependent variable (for example, schooling option). Third, all of the above interpretations are understood as being compared to the dependent variable's reference category: in this case, GoB public primary schools. Therefore, it is important to interpret each significance level within the context of two reference categories: that of the independent variable, and the constant, dependent variable reference category.

9.3.1 Supportive Findings

9.3.1.1 BRAC Run Schools

Three variable findings that are significant in distinguishing parents who choose BRAC schools as the primary schooling option for their child support the hypotheses set out in section 9.2. These are; distance between home and school does *not* cause child to miss school, there is *no* problem with administration and management within child's school, and employment status – self-employed.

[36] It is only necessary to subtract 1 from the Exp (B) value when the Exp (B) value is less than 1. All Exp (B) values over 1 illustrate final odd-values.
[37] Initially, a stepwise regression was run for exploratory purposes only; following this a forward entry method was used to develop the model and test theories presented in literature and collected from elite interviews. The Nagelkerke R^2 was 0.802.

Survey respondents who indicate that distance between school and residence does not affect their child's ability to attend school are 4.3 times more likely to send their children to BRAC schools than respondents who believe distance *is* a factor in absenteeism. This implies that respondents who send their children to BRAC schools are more satisfied with the distances between their child's school and their home than those who send their children to GoB primary schools. This is supported by elite interview data which indicates that BRAC schools are often located in areas that have been overlooked by the GoB public primary school system (White, 2005, interview), and therefore confirms the aforementioned hypothesis.

Poor school administration within a child's school also plays a statistically significant role in differentiating parents who choose BRAC schools from parents who choose GoB schools, and supports hypotheses. Survey respondents who do *not* believe that poor school administration and management is a problem in their child's school are 13.3 times *more likely* to be in the group of respondents who choose BRAC schools for their children rather than people who do believe that poor administration and management is a problem. This supports the original hypothesis that people who send their children to GoB public primary schools are more likely to experience poor administration and management within their child's school than those who send their children to alternative forms of schooling.

Self-employed survey respondents are ninety-five per cent *less likely* to be in the group of respondents who choose BRAC schools for their children rather than those who full-time employed. Those who are self-employed are not necessarily considered as the poorest of all respondents.[38] This is an anticipated finding, as literature maintains that most individuals who send their children to BRAC schools are landless, poor, and unemployed. This finding supports the original hypothesis.

9.3.1.2 Private Primary Schools

Table 5 illustrates that the following five variables, which support hypotheses, are significant in determining parents who choose private primary schools as the primary schooling option for their child from those who choose GoB public primary schools:

- Child does *not* miss school in order to earn money for the family;
- Distance between school and home does *not* cause child to miss school;
- No problem with administration and management within child's school; and

[38] See Appendix Q for a cross tabulation of survey respondent employment and economic status.

- Receiving a government stipend would *not* influence parent to send child to school more often.

Survey respondents whose child does *not* miss school in order to earn money are 15.69 times more likely to be in the group of respondents who choose to send their child to private primary schools than respondents whose child does miss school in order to earn money. This implies that children who attend private primary schools are less likely to miss school in order to work, compared to children attending GoG public primary schools. This finding supports previous hypotheses presented by literature (Sultan and Bould, 2004), and elite interview analysis (Kumar Das, 2005, interview).

Distance between child's home and school is statistically significant in differentiating respondents who send their children to private schools from those who send their children to GoB public primary schools. Respondents whose children *do not* miss school due to large distances between school and home are 3.8 times more likely to send their child to private primary schools rather than respondents whose child does miss school due to a large distance between their home and school. This finding implies that the distance between private primary schools and homes is not as limiting of a factor to student attendance as distances between GoB public primary schools and homes. Finding supports hypothesis presented by Tarik-ul-Islam (2005, interview).

Respondents who would *not* be encouraged to send their child to school more often if they received a government stipend are 3.3 times more likely to send their children to private primary school, compared to those who are encouraged to send their child to school more often if they were to receive a government stipend. This finding also supports the hypothesis that stipend recipients are more likely to send their children to GoB public primary schools.

9.3.1.3 Madrasas

There was only one variable – better teachers would not influence respondent to send their child to school more often – that was significant in distinguishing parents who choose madrasas as a primary schooling option for their child from those who choose GoB public primary schools.

The multinomial logistic regression indicates that respondents who *did not* indicate that the inclusion of better teachers would encourage them to send their child to school more often were 5.4 times more likely to send their children to madrasas than respondents who replied that hiring better teachers would encourage them to send their children to school more often. The

finding implies that parents who send their children to madrasas are more satisfied with teachers than those who send their children to GoB public primary schools, and supports the hypothesis presented by literature.

Interestingly and in contrast to differentiation of other school choices from GoB public primary schools, concerns about poor administration and managements within child's school, wages paid to tutors, and concerns about teacher quality within child's school do not differentiate the parents who chose madrasas form those who chose GoB public primary schools ($p>0.05$).

9.3.2 Unsupportive Findings

9.3.2.1 BRAC Run Schools

One independent variable regarding employment status – seasonal worker – is significant in predicting whether a parent will choose BRAC or GoB facilitated primary schooling for their children. Results are, however, in contradiction to the data hypothesis specified in section 9.2.

Survey respondents who are seasonal workers are seventy per cent *less likely* to be in the group of respondents who choose BRAC schools for their children than those who work on a full-time basis. This does not support the hypothesis, as BRAC schools normally target rural families, who often find employment as seasonal farm labourers.

9.3.2.2 Private Primary Schools

Five variables significant in determining parents likely to choose private primary schools over GoB public primary schools, yet unsupportive to hypotheses are:

- Better teachers would *not* encourage parent to send child to school more often;
- Teachers are *not* a problem within child's school. child does not miss school in order to earn money for the family;
- Respondent pays a tutor between 251 and 550 taka per month to assist with child's schoolwork;
- Respondent pays a tutor between 551 to 850 taka per month to assist with child's schoolwork; and
- Respondent pays a tutor 850+ taka per month to assist with child's schoolwork.

Respondents' perception of teacher quality (better teachers would not encourage respondents to send their children to school more often, and stating that there are no problems with the quality of the teachers) have statistically significant roles within the model. Firstly, respondents who replied that inclusion of better teachers in their child's school would *not* encourage sending their children to school more often were 2.1 times more likely (or, not much more likely) to send their children to private school, compared to respondents who stated that inclusion of better teachers would encourage them to send their children to school more often. Secondly, respondents who *do not* believe that there are problems with teachers within their child's school are only 2.9 times more likely to send their children to private primary schools than those who do believe there to be problems with teachers in their child's school. These findings indicate that there is no large difference in parental perceptions of teachers between those who send their children to private primary schools and those who send their children to public primary schools.

The wages that respondents may pay a tutor in order to assist their child with schoolwork are significant factors in differentiating parents who choose private primary schools from parents who choose GoB public primary schools. Respondents who pay a tutor between 251 and 550 taka per month, those who pay a tutor between 551 and 850 taka per month, and those who paid a tutor 850+ taka per month were all *more likely* (4.6 times, 5.8 times and 10.3 times, respectively) to send their child to private primary school than those who do not hire and pay a tutor to assist with their child's schoolwork. These results signify that every unit increase in tutor wage will increase the odds that a child will attend private primary school. In other words, every increase in the tutor's wage for those who can afford to send their children to private schools will increase the probability that they will send their children to private schools. This finding does not support the hypothesis.

Findings indicate that although significant, teacher quality is not very important in magnitude in determining the likelihood that a parent will choose to send their child to a private school or a GoB public primary school. Consequently, this finding does not support the hypothesis presented by Kumar Das (interview, 2005) that there is a significant difference between teacher quality in GoB and private schools.

9.4 Discussion of Regression Analysis Findings

The above analysis of regression findings illustrates that there are significant variables that determine parental choice of primary school for children:

- distance between home and school can predict whether or not parents will choose to send their child to a BRAC-run school or a private primary school (results indicate that distances between the home and school is more of a problem for children attending GoB public primary schools than BRAC-run schools and private primary schools);
- parents who send their children to GoB schools are more likely to think there are administration and management deficiencies within schools, when compared to BRAC-run schools and private primary schools;
- BRAC-run schools are a chosen education institution for not only poor disadvantaged, or unemployed parents;
- children attending private primary schools are less likely than children attending GoB public primary schools to miss school in order to earn money for their family;
- respondents who pay a tutor between Tk.251 and Tk.850 per month are more likely to utilise private primary schools than GoB public primary schools; and
- parents who send their children to madrasas are more content with the level of teacher quality within their child's school than parents who send children to GoB public primary schools

Multinomial logistic regression results lend support to observations collected from both elite interviews, and a literature review. These results lead to policy alternatives that will address; (1) the impact that distances between home and school have on GoB school attendance; (2) problems with distance inhibiting access to a school; (3) accountable, participatory, transparent and corruption-free school management and administration; (4) equitable access to education for poor and disadvantaged children; and (5) the quality of teacher and educational material within GoB public primary schools.

It is possible to extract central issues from the above discussion of regression analyses. Survey results indicate that parents who send children to madrasas are, in general, content with the state of their children's primary schooling. This satisfaction may be the result of the religious

aspect incorporated into studies (Ahmed, 2005). Results also show that parents who send their children to GoB public primary schools, as well as those sending their children to BRAC schools are indeed, concerned about aspects of *quality* within the primary education sector. Additionally, elite interviews suggest that poor and disadvantaged families are increasingly hiring tutors to assist with children's schoolwork (Kumar Das, interview, 2005). Regression results indicate, however, that parents who send their children to user-pay private schools (individuals who are not likely to be poor and/or disadvantaged) are more likely to hire a tutor to assist with children's schoolwork. Reasons for high tutor-usage among private school users likely relate to ability to pay a tutor, as opposed to teacher inadequacies, as survey results indicate that respondents who send children to private schools are less likely to believe that poor teacher quality is a problem within their child's school.

9.5 Survey Limitations

The survey excluded variables that would have been interesting to measure, such as importance of the inclusion of religion within a primary schooling option. Literature indicates that the level of importance a parent places on religion may have an impact on choice of educational institution for their children (Benoliel, 2003). In addition, although the chosen case study area does not appear to have a significant number of ethnic or linguistic minorities, inclusion of this variable may have indicated parental school choice, as literature maintains that many children overlooked by the Bangladeshi education system are members of ethnic or linguistic minority groups (Ahmed and Nath, 2004). An additional variable indicated by literature, but not measured in the current study is student performance (in terms of grades and attendance rates) (CAMPE, 2005). This variable was excluded because parents may not be willing to answer, or may reveal untruthful answers regarding the academic performance of their children. A larger, more comprehensive study of primary education could collect school competency scores of primary students in all four school types within the case study area.

Additional limitations of the survey involve translation methods, especially in terms of phrases and ideas, from Bangla to English. Although every effort was made to mitigate any confusion in translating (including multiple drafts written and translations completed by three individuals in both Bangladesh and Vancouver), it is possible that researchers, respondents, and translators confused terms, verb tenses, and vocabulary.

Conservative coding practices may have influenced interpretation of data. For instance, when asked about current employment status, respondents were given the option to choose from the following: full-time employed, self-employed, part-time employed, seasonal worker, unemployed, rickshaw puller, and other. Many women in Bangladesh become stay-at-home wives and mothers after marriage (regardless of their level of education). Due to lack of a 'stay-at-home-mother/wife' option form respondents to choose from, these women were coded as 'unemployed'. It is, however unlikely that this coding scheme greatly affected data analysis, as the employment status of women was not a hypothesis presented by literature or elite interviews.

Survey respondents were required to respond to the following question regarding teacher quality within their child's school: "Is poor teacher quality a problem in your child's school?" Here, poor teacher quality is an undefined subjective evaluation by parents, and is a definite limitation of the study.

Restrictions also exist in the act of surveying as well. Face-to-face surveys conducted in public areas are required to be relatively quick, as most respondents rarely wish for interruptions from their daily activities and errands to complete a survey. Such time constraints impose limitations on the number of variables tested. Additionally, when using surveys as a method of collecting primary data there is always the risk of respondent inaccuracies either by overlooking or deliberately withholding truthful information. Consideration of such weaknesses is vital when employing survey data.

Finally, although official demographic data pertaining to the case study area is not available, such information would have allowed for demographic comparisons between the sample population and the general population of Sector 4, Uttara Model Town.

10 Policy Alternatives

The following section reviews the current situation of the primary education sector, as well as four policy alternative options to improve the quality of the Bangladeshi primary school system. The discussion includes any critical issues associated with each proposed alternative. Recall that the issue at hand is not about increasing the *quantity* of primary education, rather, it regards improving the *quality* of the current primary education available. It is important to understand that the four policy alternatives are not mutually exclusive. The alternatives are interdependent with one another, and implementation strategies should consider all four potential courses of action.

By way of literature reviews, elite interviews, and primary data collection, key problems within the current system have been identified as poor administration and management at both the central government and individual school level; lack of free transportation to and from school; poor teacher, curriculum and learning material quality, and poverty as a barrier to accessing education.

10.1 Current Situation: The Status Quo

Maintaining the status quo of the current primary education sector in Bangladesh may be a viable policy option because of the recent successes that the GoB, relevant NGOs, private schools and donor organisations have made in achieving 'education for all'; especially in the context of achieving equitable education opportunities for girls and the poor. Cleary, if more children are enrolling in primary schools, successful measures have been undertaken. For example, efforts have been made by relevant actors to improve primary enrolment rates, financial support to families for continuing to send their primary-aged children to schools; in the forms of stipends, and the quantity of all forms of primary schools (GoB public, private, NGO-run, and madrasa) across the nation.

The survey conducted to determine parental schooling choices for primary-aged children measures the extent of weakness within each schooling option, and reveals that issues of gender parity and parental attitude towards education are not limiting factors to participation in primary

education. Literature review and elite interviews, although praising recent improvements within the educational system, indicate that weaknesses in terms of school and teacher quality and administration, as well as barriers to education in the form of poverty persist amidst these recent improvements to the system.[39]

The present purpose is to identify *weaknesses* in the quality of the system, as opposed to the *quantity* of education available. As such, critical issues remain when considering resuming with current practices.

10.1.1 Critical Issues

Consideration of the following assumptions is required if the status quo is a chosen policy alternative:

- The *quality* of education available to primary-aged students will not improve, and consequently, student achievement levels will remain sub-satisfactory (completing grade five with grade three competencies)
- Enrolment rates will remain high, as will primary drop-out rates
- In terms of school fees (transportation to and from school, uniforms, school supplies, and books), financial limitations on poor families will remain a deterrent to school attendance
- Teacher-training programmes will remain satisfactory at best, and curriculum changes are unlikely, thus rote-learning practices will persist
- Carelessness and disorganisation at the central government level will allow for inconsistencies, corruption and inadequacies at the individual school level

10.2 Alternative 1: Replacement of Government School Stipend with Selective School Voucher Programme

The current government stipend programme offered to children of poor, landless families for exhibiting at least 85 per cent attendance in any form of recognised primary school has drastically raised girls' enrolment, attendance, and retention rates within primary schools. Yet, there are numerous drawbacks to the current government stipend programme, including:

[39] Recall that section 6.3.2 revealed results that indicate that teacher quality is at most a weak distinguishing characteristic in determining parental choice of primary school.

1) double enrolment of children; whereby participants of the stipend program may enrol in two different types of school (although they would not meet the 85 per cent attendance requirement at either school, literature suggests that it is not uncommon for parents to coerce members of SMCs to enrol children in a school in order to receive double stipend amounts, regardless of child's attendance rates) (Tietjen, 2003); and
2) school swapping; in which parents consciously enrol their child in a neighbourhood where the family is poor compared to all other neighbourhood students.[40] Thus, such programmes may not be efficient in fostering economic and educational growth for the poor.

Since gender parity has been achieved, and primary enrolment rates have been continuously improving, the current stipend programme aimed at improving girls' school attendance rates should be replaced with a school voucher programme. Vouchers have the potential to improve the *quality* of primary education.

Two of the major inhibiting factors of school enrolment, especially for poor parents, are the opportunity cost of sending a child to school, and the lack of capacity that public schools have in meeting scholastic demands (Patrinos, 2001). A possible resolution to such constraints is the implementation of voucher programmes. A tax-funded (GoB monies currently used to fund school stipend programmes) or privately funded (through NGOs, donor agencies) voucher programme will require the GoB to make payments to families that enable their children to attend public or private schools of their choice (West, 1996).[41] According to Milton Friedman (as cited in Bainbridge and Sundre, 1992) under a system of voucher programmes the government would give each child, through his or her parents or indirectly through payments made to a selected school, a specified sum to be used solely in paying for his or her general education. Parents could then be able to spend this amount at a school of their own choice (GoB public, private, NGO-run,

[40] Tietjen (2003) and Mattingly (2005, interview) suggest that a current weakness in the government school stipend programme is that often the programme chooses the poorest 40 per cent of children within a particular school as recipients of stipends. The problem arises when stipends are awarded to the poorest 40 per cent of children within a well off neighbourhood. Parents could potentially enrol their children in schools located in affluent neighbourhoods, so that their family is considered 'poor' when compared to other families sending their children to the same school.

[41] According to West (1996), a tax funded voucher programme uses government taxes on a given industry to supply education vouchers, whereas a privately funded voucher programme uses money voluntarily given by industry from its revenues to fund the voucher programme.

or madrasa), provided it met minimum standards laid down by the GoB.[42] Upon receiving vouchers, each school will return collected vouchers to the GoB for the cash value of the voucher. The core objective of a voucher programme is to "provide families with maximum choice within a decentralised and competitive system of public and private schools" (West, 1996, para. 14). Essentially, within the present system, schools are accountable to an often-corrupt government. Implementation of a voucher system, however, will make schools accountable directly to parents, since they choose and pay for their children's education through vouchers (Shah, 2005).

As per Tietjen (2003) the GoB and NGOs working in education through positive discrimination, and initiatives such as the PESP, are committed to improving the enrolment of the poorest 40 per cent of school-aged children. In order to meet this goal, Bangladesh could take advantage of a selective school voucher programme geared towards low-income and poor families (as opposed to based on gender). In such a case, parents of primary-aged children considered to be living under a certain economic status (i.e. impoverished/below poverty line) are with a voucher, which must be utilised in any recognised primary education programme.[43]

10.2.1 Critical Issues

The section lists considerations associated with replacement of the current government stipend programme with a school voucher programme:

- There would be an increase in parental choice, where parents would have the right to choose the type of primary school they see fit for their child's educational needs
- There would be less of a risk of entrenching a class-based society, as children from all socio-economic backgrounds would have the ability to learn in any institution
- Schools will be forced to compete for students, thus raising the quality of teachers and content of material offered. Parents will likely choose good schools, which will collect many vouchers and thrive. Inferior schools will be forced to either improve or shut down

[42] Although systems of school voucher programmes exist where school choice may be limited to only public schools, or only private schools, providing parents in Uttara, Sector 4 with school vouchers will allow for increased opportunities and choice among parents.
[43] The values of the vouchers may vary in value depending on family income levels.

- Assuming that the GoB does not cut funding for education programmes, by means of the income schools generate by collecting vouchers, schools could offer better pay and promotions to worthy teachers, who would likely strive to perform satisfactorily in order to receive such benefits. Revenue generated by schools through vouchers received would provide schools with the opportunity to supply students with free or inexpensive transportation alternatives to and from school (via bicycle-drawn carriage),[44] as well as free uniforms, books, and other school supplies, or any service the school's individual students require, as opposed to providing mandated goods and services (Shah, 2005)
- The GoB would have the responsibility to generate sufficient funds for school vouchers for all low-income primary-aged children, either independently or collectively with NGOs and donor agencies. This requires increasing monitoring and manpower, which may prove to be difficult in an already "fragile and under-resourced" organization (Tietjen, 2003, p. 34)
- Usage of vouchers in Western countries has been controversial because of fears of vouchers destroying the public school system (West, 1996) because parents may essentially 'desert' the public school system[45]
- Encouraging more primary-aged children to enrol in primary schools may have significant congestion effects on already overcrowded schools
- Committing to the voucher programme may be too expensive, and not effective enough in eliminating lost opportunity costs for the 'hard-core' poor, whose children are required to work in order to maintain family subsistence.
- Findings in this study are applicable to the case study area and do not address concerns regarding the competitiveness of rural and isolated schools that are far-removed from schools they are in 'competition' with. Further research and analysis is needed on order to determine the effect that a school voucher programme will have on school improvements within rural, isolated primary schools

[44] See Appendix R for examples of bicycle-drawn school carriages.
[45] Such predictions assume that public schools will refuse to, or be unable to adjust in the face of competition. Concerns arise due to common hypothesis that middle-income families will desert the public school system if a voucher-system was implements. However, if vouchers are awarded only to the poor and disadvantaged, such fears are unjustifiable (West, 1996). Worthy of mention is the positive impacts the current government stipend targeted at poor families has already had on primary education in Bangladesh.

10.3 Alternative 2: Decentralisation of the Primary Education Sector

Recently, Bangladesh has experienced administrative decentralization in the area of primary education in the sense that many administrative decisions and actions are made at the upaliza level. Still, local school authorities responsible for delivery of education services at the school level have limited power and authority, as the education sector is essentially centrally controlled and administered. Banagiri (1999) argues that "central control saps local initiative, restrains interaction between school and community, excludes teachers from curriculum development and text book preparation, and prevents teachers from developing a broader role in and accountability to the community" (para. 14). Further, a bureaucratic culture often disregards teachers' commitment and promotes a theory, rather than skills-building curriculum (Gottlieb, 1999).

This policy alternative suggests that upazila-level government authorities could play more of a role in primary school facilitation. Additionally, individual school authorities (principals, Head Masters) should have the power and authority to facilitate school administration, hiring and firing of teachers. In this regard, independent district education authorities will gain responsibility for the overall planning and management of primary education. Principals and Head Masters are accountable to Thana (or regional) Education Officers and Assistant Thana Education Officers who have authority over regional employees. Individual school authorities will manage educational resources provided by the government and other resources derived from other sources, support community and school-based plans, and programmes for quality primary education. This process should be initiated on a trial basis in a few districts to help capacity building and to gain knowledge about how a decentralised system can function free of corruption and politicization.

An additional method of increasing the implementation of operational reforms is to involve beneficiaries of primary schooling (parents and community members) in holding personnel accountable for their actions (Tietjen et al., 2004). Although it is outside the scope of the current study, such involvement would require a restructuring in how SMCs and PTAs operate, and broadening the definition of these groups' responsibilities.

10.3.1 Critical Issues

The following are chief factors associated with further decentralisation of the primary education sector:

- Allowing administrative concerns to be dealt with at the individual school level will allow for an increase in the role of the community in school administration, and awareness of and interaction with SMCs and PTAs in school administration
- A rise in schools' accountability to communities, usage of an adequate balance of resources and authority at the school level, and a proper balance of resources for each individual school will contribute to improvement in the quality of education
- Teachers organisations will have increased opportunities to be involved in consultations about local development of the education system and education policy
- Non-formal schools (NGO-run, private schools, madrasas) will be able to further the educational objectives of the GoB
- There is a possibility the corruption will travel from the central government to the upazila, and even to SMC/PTA levels. This may threaten the proposed accountability and transparency within the proposed alternative.

10.4 Alternative 3: Comprehensive Teacher-Training Programmes

This fourth policy alternative is applicable to all types of primary education available to primary-aged children in Bangladesh, as teachers in all schools are responsible for ensuring quality education and the teacher-learning process is a critical determinant of quality in education. Most primary schools in Bangladesh are teacher-centred and consist of a one-way transmission of knowledge from teacher to student. Although dynamic activities, including exercise, singing, dancing, story-telling, and drawing (NDI, 2003) are defined by the National Curriculum and Text Book Board, it is argued that few schools and teachers implement such recommendations. Training teachers to teach in an active environment and elimination of rote-learning methods will raise primary competency levels. Although it is largely argued that only professional, full-time teachers, holding both a Bachelor's Degree as well as a Certificate in Education should be hired as primary teachers, elite interviews, literature review, and survey regression evidence shows that para-teachers (those functioning in BRAC and other NGO-run schools) are as competent as GoB-

trained teachers in their teaching practices. Parents generally accept these teachers. Additionally, Angrist and Guryan (2003) argue that forcing teachers to be certified will raise teacher salaries, as opposed to teacher quality. Therefore, as per Haiplik (2003) and White (2005) GoB schooling programmes can learn from BRAC's system of teacher training. Subsequently, a formal working relationship between the GoB, BRAC, and other NGOs with education programmes will encourage sharing and cooperation to achieve quality in education.

10.4.1 Critical Issues

The following list of critical issues should be taken into account if this policy alternative is to be given serious implementation consideration:

- This alternative will involve parents, family and community at all stages of education. (Although the involvement of parents and community members may present concerns regarding primary education knowledge within parents, BRAC and other NGOs have shown that involving parents and the community is, in general, a positive experience for all actors)
- Will allow for the creation a partnership between NGOs working in the primary education sector and the GoB, which may eventually lead to the GoB recognising the education children receive from NGO-run primary schools
- Gearing all teacher education programmes (both pre-service and in-service) to develop pedagogical skills required in the classroom will promote active, and relevant teaching techniques, and the creation of a common curriculum for all types of primary schooling
- Any partnership between the GoB and NGOs will require continuous negotiation, navigation, and adaptation in order to minimise any pitfalls while maximising potential
- The non-formal teacher-training method may not be suitable for replication for all primary schools (because even though non-formal students perform better than GoB students on school competencies, they still under-perform according to national standards). Yet, a rethinking of teacher-training should consider relevant lessons from approaches NGOs use in training their teachers
- More qualified teachers will lessen the need for parents to hire teachers for their children

10.5 Alternative 4: Civil Society Education Lobbying

This alternative proposes to encourage partnerships between NGOs, donor agencies, parent and community groups, and teachers' organisations whose primary objective is to apply pressure on the GoB and international donor agencies who work in the primary education sector. [46] Essentially, CAMPE and other NGOs working within the primary education sector should apply pressure on the GoB to undertake quality-improvements at the management and administration level, both centrally and at the upazila level. Recall that approximately one-third of the capital allocated for education in Bangladesh comes from international donors. Donors are therefore in a powerful bargaining position to see their suggestions realised, and can threaten to withdraw funds for education if proactive measures to end corruption, poor administration and management, and non-accountability of central and local government operations are not undertaken by the GoB. Along this line, CAMPE should urge donor agencies to pressure the GoB to undertake accountable and transparent actions in the allocation of educational funds, improvements in teacher salaries, and to further partnerships between the GoB, NGOs, and international donors to change the current state of primary education. Additionally, donor agencies should be encouraged to pressure local MPs who illegally manipulate individual school fund for their personal advancement.

10.5.1 Critical Issues

As with the previously described alternatives, consideration of the following four issues is crucial:

- Allowing stakeholders who are non-partisan in regards to GoB functions to influence the primary education sector will eliminate problems associated with competing political parties
- Teachers, employed by the government, are often limited in their ability to organise into unions, will be given the support needed to freely express their needs as well as the needs of students in regards to dissatisfaction with school text books and learning supplies, poor salaries, and high student to teacher ratios in the classroom (Frederiksson, 1999)

[46] Donor agencies such as the Canadian International Development Agency (CIDA) could use their financial influence to direct current GoB education policies.

- Increased involvement and support may motivate uninspired teachers to engage in effective, active learning techniques and to have increased interest in individual student needs, and parental concerns
- The GoB may not take pressure network suggestions and requests into consideration, and may end communication and cooperation with NGOs, parent and teacher organisations

11 Evaluation of Policy Alternatives

This section provides an evaluation of the four proposed policy alternatives. Section 11.1 describes the seven criteria used to evaluate the ability of each policy alternative to improve the quality of primary education in Bangladesh, including criteria definitions and measurement schemes. Section 11.2 then provides an assessment of each policy alternative in relation to criteria set out in section 11.1. An alternatives matrix (table 7) provides the necessary tools for evaluation of alternatives, while considering criteria, literature and elite interview information, and data collected by way of a survey.

Recall that the four policy alternatives are interdependent and that any consideration of implementation should recognise that the alternatives are not mutually exclusive.

11.1 Criteria Definitions and Measurements

Table 6 provides a typology of the criteria used in this paper to evaluate each of the policy alternatives designed to improve the quality of education in Bangladeshi primary schools.[47]

Table 6: Criteria Used to Assess Policy Alternatives

Criteria	Definition	Measurement
Effectiveness	To what extent would the proposed policy result in a significant improvement when measured against its primary objective as set out in Section 7?	High = 3 Medium = 2 Low = 1
Political Feasibility	To what extent will the proposed policy be accepted by the GoB as an applicable course of action?	High = 3 Medium = 2 Low = 1
Non-GoB Stakeholder Receptiveness	What level of support will the alternative generate among stakeholders?	Out of a possible 5 points
Spill Over Effects	To what extent does the policy provide linkages to other social development issues in a way that legitimises implementation?	High = 3 Medium = 2 Low = 1
Administrative Operability	To what degree are there barriers to implementation?	High = 3 Medium = 2 Low = 1
Accountability Outcomes	If implemented, to what extent will the policy result in a transparent and accountable system?	High = 3 Medium = 2 Low = 1
Ability to Lower Administrative Cost	What is the relative cost of the proposed policy, compared to all other considered alternatives?	High = 3 Medium = 2 Low = 1

The purpose of the above list is to provide the basis for trade-offs between policy alternatives, and assist in providing a well-informed guess of possible outcomes. In the evaluation of each policy alternative, '*non-GoB stakeholder receptiveness*' refers to NGOs, non-formal teaching establishments, communities (parents, upazila leaders), teacher organisations, and the GoB.[48] *Effectiveness* refers to whether the policy alternative will result in a significant improvement when measured against the primary study objective; *political feasibility* tests the positive impact that the policy alternative will have on current GoB practices, including responsiveness and acceptability by the GoB. S*pill-over* effects tests the level of additional socio-

[47] The above list of criteria is not exhaustive. It includes criteria commonly applied to analysis of policy alternatives and can be measured by the author using the data and information available. A more comprehensive study would allow inclusion of an expanded list of criteria with more precise measures. Data available for this study precluded the inclusion of more criteria.
[48] See Appendix S for Stakeholder Responsiveness Scoring.

economic and human-capital building externalities that the policy alternative will create. *Administrative operability* considers alternative feasibility in terms of implementation, staffing, management, and physical school infrastructure. *Accountability outcomes* identifies whether a policy alternative will result in an open, transparent, and corruption-free atmosphere both at the central government and individual school level. *Ability to Lower Administrative Cost* measures the alternative's costs relative to all other alternatives. In this regard, the awarding of a high score goes to the policy with the lowest fiscal amount.

11.2 Assessment of Policy Alternatives

This section provides an assessment of how each policy alternative proposed in section 11 measures against criteria considered in *Table 6: Criteria used to Assess Policy Alternatives*. Criteria outlined in the previous section are used as measures to assess each alternative. The purpose of the matrix is to compare alternatives relative to one another. Data included in the assessment is the result of extensive literature review, elite interviews, and primary data collection. Table 7 summarises the assessment of alternatives against each criteria. Following the matrix is a summary and analysis of the policy alternatives.

11.3 Alternatives Matrix

Table 7: Evaluation of Policy Alternatives

		Alternatives				
Criteria	**Value**	**Current Situation - Status Quo**	**Alternative 1 - Replace Stipends with Vouchers**	**Alternative 2 - Decentralisation**	**Alternative 3 - Comprehensive Teacher-Training Programmes**	**Alternative 4 – Civil Society Education Lobbying**
Effectiveness	**/3**	**Low** - The status quo will not improve the *quality* of primary education **(1/3)**	**High –** Will allow parents to exercise choice of primary school. Potential to increase *quality* of primary education **(3/3)**	**High** - Improvements in, and localisation of school administration and management may allow individual schools to plan for *quality* of education free of corruption and politicisation at the central government level **(3/3)**	**High –** Problems exist with rote-learning techniques, so revisions to current teacher-training would allow for inclusion of active learning techniques **(3/3)**	**High -** Lobbying GoB will promote corruption-free management, will allow for teacher and material improvements **(3/3)**
Political Feasibility	**/3**	**High -** GoB will continue to function as is (improving *quantity* of primary education) **(3/3)**	**Low -** Interest groups (NGOs) may loose portions of budget. Concern of community backlash **(1/3)**	**Low –** Political culture of Bangladesh may result in resistance **(1/3)**	**Medium -** Increased partnership between NGOs and GoB require negotiation; adaptation of different teacher-training may create tension between stakeholders **(2/3)**	**Medium –** GoB suspicious that NGOs and donors may overstep boundaries **(2/3)**
Non-GoB Stakeholder Responsiveness	**/5**	**Lowest Score** -GoB support **(1/5)**	**Highest Score -** Complete stakeholder support **(5/5)**	**High Score -** NGO, private sector, and community support **(4/5)**	**High Score -** NGO, private sector, and community support **(4/5)**	**High Score -** NGO, private sector, community, and teacher organisation support **(4/5)**

		Alternatives				
Criteria	**Value**	**Current Situation - Status Quo**	**Alternative 1 - Replace Stipends with Vouchers**	**Alternative 2 - Decentralisation**	**Alternative 3 - Comprehensive Teacher-Training Programmes**	**Alternative 4 - Civil Society Education Lobbying**
Spill-Over Effects	**/3**	**Low -** Current state of affairs will persist **(1/3)**	**High -** Promotion of equality among primary learners; increased access to education raises national human capital **(3/3)**	**High -** Promotion of accountability in administration; promotion of participation of community in school affairs will allow for specific changes to improve access, equity and quality of education at the individual school level **(3/3)**	**Medium -** Policy will not necessarily improve social development **(2/3)**	**Medium -** Pressure is ultimately focussed on primary education implementation and improvement **(2/3)**
Administrative Operability	**/3**	**Low -** No change from current state of education **(1/3)**	**Medium -** Similar operation as current stipend programme, yet increases in child enrolment may place pressure on already over-crowded primary schools. Current problems with administering stipends could reappear in the new voucher programme **(2/3)**	**Medium -** Initial difficulties in implementation and organisation, but will effectively utilise current upazila and district government employees, as well as willing community members and parents **(2/3)**	**Medium -** Need for creation of a common, sector-wide curriculum and teacher-training manuals/course material **(2/3)**	**High -** NGO groups currently advise the MOPE; donors have great influence **(3/3)**
Accountability Outcomes	**/3**	**Low -** Current practice not transparent or accountable **(1/3)**	**High –** Increased competition among schools will: promote transparency and awareness of school amenities, raise schools' accountability to community; higher paid teachers will exhibit increase in performance and less absenteeism **(3/3)**	**High -** Schools will be accountable to community and parents; interaction and more responsibility on SMCs and PTAs; balance of resources at individual school level **(3/3)**	**Medium -** Schools and administrative personnel must be accountable for their actions due to increased partnerships with outside organisations **(2/3)**	**High -** Increase in accountable actions by GoB due to scrutiny by NGOs and donor agencies **(3/3)**

		Alternatives				
Criteria	**Value**	**Current Situation - Status Quo**	**Alternative 1 - Replace Stipends with Vouchers**	**Alternative 2 - Decentralisation**	**Alternative 3 - Comprehensive Teacher-Training Programmes**	**Alternative 4 - Civil Society Education Lobbying**
Ability to Lower Administrative Cost	**/3**	**High -** No additional costs required **(3/3)**	**Medium -** Costs associated with regulation of voucher recipients; may require costs in addition to current stipend programme **(2/3)**	**High -** Policy will utilise current upazila, NGO, and community employees and members **(3/3)**	**Low** - Coordination and revitalisation of both GoB and NGO teacher-training programmes **(1/3)**	**High -** Policy will utilise current NGO and donor employees **(3/3)**
Total Points Received	**/23**	**11/23**	**19/23**	**19/23**	**16/23**	**20/23**

(Sources: Gottlieb, 1999; Patrinos, 2001; Ryan and Meng, 2004; Sunkotomarn, 2003; Kumar Das, 2005, interview; Tietjen, 2003; Tietjen et al., 2004; UNICEF, 2006; West, 1996; White, 2005, interview).

11.4 Summary of Policy Alternatives

The following is a summary of the policy alternative analysis based on *Table 7: Evaluation of Policy Alternatives.*

11.4.1 Current Situation: The Status Quo

The status quo is *not* a viable policy alternative to reach the study objective of improving the *quality* of primary school education. Persistence of the status quo will allow the insufficient state of primary education to continue in Bangladesh. Refusing to implement changes will permit the current system, consisting of unmotivated teachers, unsatisfied parents, and corrupt and powerless local government and school officials to continue. The status quo targets quantity, as opposed to quality as the key issue within the primary school system; and will contribute to high dropout rates. Those who do finish the required five years of primary schooling are likely to do so without gaining full knowledge of expected school competencies, and lack of dialogue between affected stakeholders will persist.

11.4.2 Replacing Government Stipend Programmes with a School Voucher Programme

Government stipends aimed at increasing girls' enrolment in primary schools is not a current concern, as current case study evaluation indicates that parents realise the importance of girls' education. Still, according to the current case study, and literature, poverty is a limiting factor to school enrolment. Providing poverty-stricken families with school vouchers would force schools to be accountable to the consumers of primary education – parents (UNICEF, 2006). Offering parents increased choice of primary school will promote competition among schools; therefore, individual schools are expected to focus on improving quality in order to attain voucher amounts from parents (West, 1996). More money available to schools will allow for teacher incentives by way of increased pay, which could address the problem of unmotivated and absentee teachers. These changes would consequently benefit teacher-student contact time, which literature and elite interviews argue is a determining factor in student performance and willingness of parents to send children to a particular school. In addition to increased parental school choice and teacher motivation, providing parents with the monetary means of sending children to school through vouchers facilitates an opportunity for schools to raise infrastructure, including free transportation to and from school, free textbooks and supplies, and in-service

teacher training and workshops. The use of school vouchers, as opposed to cash stipends will ensure that funds go towards primary school education development.

11.4.3 Decentralisation

Decentralisation received the highest score in the evaluation of policy alternatives, compared to all other proposed alternatives (23/20), and *is* a suitable alternative because it encourages working relationships between all levels of government, SMCs, PTAs, and the community. Increasing the authority of local level actors will force the GoB to be more accountable to individual schools, and will encourage SMC and PTA formation. As per Behrman et al. (2002), at the individual school level formation of SMCs and PTAs theoretically encourages community and school partnerships in school management, yet have little to no voice within the current, highly centralised system. Indeed, as suggested by survey data, GoB public primary school SMCs and PTAs currently have little to no function. An increase in local level decision-making will encourage grassroots and community organisations to have a voice regarding parents' and children's educational needs. Implementation of a liable local level authority will allow for local level and individual school dialogue and debate between interested actors. Currently, teachers are centrally recruited, regardless of individual school needs and desires (Behrman et al., 2002) and school principals have little ability and power to take corrective measures when staff performs poorly. This may be a contributing factor to high teacher absenteeism, and poor quality of teaching. The GoB must give special attention to principals and head teachers who should have the power to make decisions regarding each school, in terms of hiring and firing, and reprimanding teachers who behave poorly. This change will force teachers to be accountable for their actions.

11.4.4 Comprehensive Teacher Training Programmes

Because literature, elite interviews and survey results indicate that poor teacher quality is a concern for parents (especially parents who send their children to GoB public schools), stricter teacher training programmes should be a long-term objective. This alternative will be effective in reaching the ultimate objective of raising the *quality* of primary education, by way of educating teachers and administrators in effective, active learning teaching techniques. Difficulties arise, however when collaboration efforts between NGOs, the private sector, and the GoB are required.

As per literature, the rote-learning, theory-based techniques of the C-i-E programme, which GoB teachers are required to complete do not contribute to improvements in education

(Haiplik, 2003). At the same time, survey data and literature indicate that the highly celebrated BRAC method of training teachers is not satisfactory for all parents, and that graduates of NGO-run primary schools are only provided with basic literacy and numeracy skills because teachers have limited or no education and training. Techniques utilised by NGO teacher-training programmes as well as the GoB should therefore be pooled to create as effective system developed through educational research, with a focus on needs-based, active learning, and comprehension of required competencies. This merging of training styles and techniques will require cooperation at all levels, including coordination between NGOs, donors, and GoB education officials to provide analogous training to teachers working in all types of primary schools.

11.4.5 Encouragement of Civil Society Education Lobbying

Analysis of criteria, coupled with the background literature review reveal that an active, committed pressure network consisting of donors, NGOs, and interested members of the community *is* a viable policy alternative. Recall that Bangladesh is heavily dependent on external sources of financing for its development budget (Drewes, 2003). Pressure applied by donors, NGOs, and community and parent organisations can therefore influence how education aid money is spent, as it is argued by literature and elite interview data that GoB education practices and standards are likely to shift with the appropriate pressure from NGOs, donors, teachers, parents, and community members. Basing pressure on a credible assessment of aid allocation and an evaluation of the validity of current GoB education spending, will allow for effective deployment of this alternative.

Because existing employees, concerned community members, and donors would be utilised, costs would be relatively low. Coordination and collaboration efforts would be necessary in order to effectively lobby and pressure the GoB regarding primary education policy. Under increased scrutiny, and threat of withdrawal of assistance by donors, the GoB's activities would become increasingly accountable and transparent.

12 Analysis of Policy Alternatives

The following section provides an analysis of the four policy alternatives. Section 12.1 investigates each alternative when compared to the criteria discussed in section 11.1. Section 12.2 provides a discussion of study recommendations and implementation considerations. The section concludes with section 12.3, which clarifies further considerations to the current study.

12.1 Policy Implications

This section provides an analysis of policy implications and provides both support to the usage of the criteria discussed in section 12.1, and a clear synopsis of the applicability of each policy alternative. Although the objectives and criteria provide justification for each policy alternative, it is imperative to affirm that each criterion may hold varying relevance depending on stated objectives. Each alternative must be considered as a tool to *improve the quality of education in Bangladesh in terms of both educational inputs and outputs*.

The findings of the current study, including a review of relevant literature and education models, elite interviews, and parental survey illustrate both the results of past efforts to improve quality and access to primary education in Bangladesh, and provide important lessons and implications for future policies and priorities. It is clear that Bangladesh is committed to international 'education for all' commitments, by way of government stipend programmes, and increasing the number of educational institutions. That nation has received international recognition for achieving gender parity in primary education enrolment through these mediums. Still, the issue of improving the quality of both the inputs, as well as the outputs of education have not been realised. This study lends support to arguments that call for additional decentralisation within the primary education sector, effective allocation of resources to education, a skilled work force (including local level education authorities and teachers), curriculum design, and cooperative efforts by all interested stakeholders.

Table 8 summarises these findings.

Table 8: Policy Implications

Policy Implications	
Criteria and Overarching Concern	**Impact on Policy Alternatives**
1. Political Feasibility (The GoB's participation in realising any alternative will undoubtedly have an impact on any policy alternative).	In order to attain a primary education sector that exemplifies high quality, the GoB must be committed to reallocating its educational funds. For instance, **replacing the current school stipend programme with a voucher programme** will call on the GoB to acknowledge that current efforts have not increased the *quality* of education. Ensuring that stipend amounts reach individual school targets will require commitment at all levels of government (local and central) to strive in making administrative changes that are free of corruption. Such changes will not be painless. As indicated by Care International (2005) corruption in Bangladesh is used as a daily transaction at all government levels, thus elimination of corrupt practices will require a shift in ingrained, unwritten rules. **Decentralising the education sector** can potentially lessen corrupt practices, as local level officials with renewed authority will be more accessible to the consumers of primary education. Alternatives such as a **comprehensive teacher training programme** and **encouragement of Civil Society Education Lobbying** can function in an environment already occupied by both NGO and GoB actors. The GoB currently recognises the functions of NGO facilitated schools, and readily accepts donor capital to fund its education programmes (Kumar Das, 2005, interview). Increased activity by these actors within the primary education sector will potentially be accepted, as external actors contribute to the state of primary education – both financially, and administratively.
2. Cost and Administrative Operability (May result in lowering the spill-over effects criterion)	External sources offer large funding for Bangladesh's education sector. Yet, in order to keep costs as low as possible, the long-term objective of **raising the overall human capital** of the nation may be overlooked due to short-term costs that training programmes, curriculum re-design, administration and management restructuring, and school amenities (such as free transportation to and from school) will have upon the sector. In addition, the **school voucher programme** may suffer if costs become an issue. Enforcement of narrow restrictions may be enforced upon which families and schools are eligible to take part in the voucher programme. This creates the risk of selecting only a small percentage of the poorest of the poor (in an effort to reduce stipends granted) as recipients of vouchers. Additionally, corruption and favouritism within the education sector may restrict some schools from being worthy recipients of vouchers due to political infighting between the central and local government.
3. Non-GoB Stakeholder Responsiveness (In order to gain acceptance; the alterative must be accepted by stakeholders that will be affected by changes to the primary education sector)	Survey analysis concludes that parents are concerned about the administration and management of primary schools. This lends support for further **decentralisation of the sector.** Yet, consideration of the responsiveness of the GoB, NGOs, donor agencies, and the private education sector is necessary. Literature, elite interviews, and survey results indicate that **replacing the current government stipend programme with a school voucher programme** is the most stakeholder-responsive alternative. The GoB already awards compensation to poor families (Bainbridge and Sundre, 1992), NGOs and donor agencies are in favour of improving the state of individual primary schools (Kumar Das, 2005, interview). Additionally, parents, teachers, and primary students are all stakeholders that will benefit from increased teacher compensation (resulting in higher teacher motivation), school infrastructure that will enable children to travel to and from schools in a free and safe manner, and increased parental choice of primary school.

Policy Implications	
Criteria and Overarching Concern	**Impact on Policy Alternatives**
4. Accountability Outcomes and Effectiveness (An alternative's ability to achieve the stated policy objective – raising the *quality*	If powers embark upon alternatives in a careful, accountable and transparent conduct, there could be significant improvement in the quality all four alternatives to the status quo have the potential to significantly improve the quality of primary education inputs and outputs. Both criteria require that implementation steps be taken carefully, and with approval from all affected and interested stakeholders. Specifically, while the use of **civil society education lobbying** can hold the GoB accountable to spending patterns, enforcing administrative and educational standards, and ensuring that aid money goes towards specified educational targets, backlash by the GoB is a potential concern. Therefore, close supervision and strict measures must be in place, and decisions must be made collectively and with full approval of all stakeholders.
5. Spill-over Effects (The alternative's ability to create positive externalities outside the scope of the study)	By contributing to the education of the future generation of Bangladesh, each of the four policy alternatives to the status quo have the ability to positively impact the formation of human capital in Bangladesh – a characteristic essential for nationwide development growth (Schugurensky, 2002) and high future earnings for young learners. Implementation of a **school voucher programme**, in which schools are required to use stipend amounts for individual school development, allows schools to create employment for local adults and adolescents. For instance, using funds to develop a school transportation programme (such as the bicycle school carriages shown in Appendix R) employs unemployed and underemployed individuals. These programmes also develop ties between parents, the community and schools, which are essential for open engagement, collaboration, and dialogue.

Essentially, the study lends support to arguments that call for additional decentralisation within the primary education sector, effective allocation of resources to education, a skilled work force (including local level education authorities and teachers), curriculum design, and cooperative efforts by all interested stakeholders.

12.2 Recommendations and Implementation Considerations

Based on the evaluation of policy implications, the GoB and NGOs working within the primary education sector may choose to implement a combination of the above-considered policy alternatives, as the above alternatives are not mutually exclusive. It is imperative to remember that effective improvement of the quality of primary education in Bangladesh requires all of the recommendations. An exception is of course, the status quo, which does not strive to improve the *quality* of education available to primary-aged children, the *quality* of training provided to teachers, or the *quality* of school and government management and administration. The status quo, although low in terms of short-term costs, would ultimately incur great costs in terms of loss in human capital.

A sequential combination of viable policy alternatives is one way to achieve stated objectives. Establishment of a unified pressure network, which consists of representatives from donor agencies, members of NGOs, such as CAMPE, and concerned community members (which could include parents and guardians and community leaders) is a good starting point. The network's primary purpose is to lobby and advise the GoB on aspects of primary education management and administration, but will also have the opportunity to lobby and place pressure on NGO-run establishments, private establishments, and madrasas in terms of teaching and learning practices.

A next step is for the GoB and CAMPE to increase the decentralisation of the primary education sector. The current and highly centralised system is highly susceptible to corruption and is so far-removed from individual schools and communities, that transparency and accountability are unlikely. Resources, in terms of GoB district and upaliza employees, SMCs, and PTAs are already in place, which will bring down costs. Prior to full implementation of the policy alternative, a pilot project should be undertaken. Through annual or bi-annual evaluations, if it is found that the pilot meets desired objectives; additional decentralisation projects should be implemented yearly until the recommendation has been fully executed. Another important consideration is to promote local-level comprehensive planning (at the village, union and upazila

level) for educational services of acceptable quality for all children, involving in the process all stakeholders including NGOs, government and government-assisted institutions – both centrally and locally – and community leaders. The aim is to identify and implement essential quality improvements in all primary education institutions in each sub-district, including management and administration, physical infrastructure and services offered to students (free transportation), teacher training, and application of a needs-based curriculum design centred on active learning techniques. Although it is not focussed upon in the current study, positive steps should be taken to facilitate mediated stakeholder collaboration and negotiation.

Next, the GoB should be encouraged to replace the existing government stipend programme for underprivileged children; namely girls, in which families are given a specific amount of Taka per month, to spend as they wish, if they agree to send their children to school regularly, with a more comprehensive school voucher programme. To ensure that vouchers fall into the hands of those who truly need them, this programme must be highly regulated and evaluated by an independent body that is not affiliated with local school or upazila officials, or community elites, who have been blamed in the past for using coercion and influence for personal gain. Possible regulative bodies include members of CAMPE and other NGO and donor agencies. Individual schools will be able to use funds acquired for school curriculum, learning materials, teacher salary, and administration and management improvements only.

Finally, analysis of alternatives reveals that imposing comprehensive teacher-training programmes will be time and energy consuming in terms of collaboration between government and non-government units, as well as incur initial costs to revitalise and manage both GoB, NGO, private and madrasa curriculum and teacher-training practices. Additionally, literature suggests that imposing stricter regulations on teacher training will ultimately succeed in raising teacher salaries, as opposed to teacher quality. Still, improvements in the training of teachers within all primary schools should be a long-term goal for both the GoB and NGOs. An appropriate time to implement this alternative is post-decentralisation, as teacher-training programmes, and curriculum design will be more likely to be open to the input and design of all interested stakeholders.

12.3 Further Considerations

It is imperative to bear in mind that all conclusions, policy alternatives, and recommendations are associated with the selected case study area only; context needs to be carefully considered. For instance, although literature and regression analysis indicates that madrasas are an effective schooling alternative for primary-aged children, only 4.8 per cent of parents surveyed choose to send their children to such schools. Therefore, encouraging parents to send their children to seminary schools was not considered a viable policy alternative *for the case study area.* Lessons learned from this study provide an appropriate starting point for future research and study of parental preferences and school inadequacies in other regions of Bangladesh, as populations of parents residing in diverse neighbourhoods may have distinctive schooling preferences for their primary-aged children. Additionally, individual school quality is likely to vary among regions of the nation.

An additional policy alternative that should be considered in further studies is the usage of Diaspora linkages between Bangladesh and Bangladeshi's living overseas.[49] There are arguments that the immigrant population has emotional, social and cultural requirements, which they fulfil by maintaining a certain degree of relationship with their country of origin (Siddiqui, 2004). In fact, by way of remittances, and other financial support, Bangladeshi migrants may play an important role in building economic and social features in their homeland. Existing government organisations such as the Ministry of Expatriates' Welfare and Overseas Employment and the International Organisation for Migration could play a large role in such developments. Bangladeshi's living and working overseas (who often send remittances back to Bangladesh in order to assist family members) may be encouraged to commit portions of remittances towards the development of Bangladesh's human capital in the form of investments in primary education.[50]

The Asian Development Bank (2005) suggests that acquiring the finances for the basic requirements of universal education would require a growth of Bangladesh's GDP by approximately 5 per cent per year. This is a viable policy alternative, as literature indicates that for the fiscal year 2005, Bangladesh's economy grew about 5.3 per cent; although it has been suggested that the economy's real growth may only amount to an approximate three per cent (ADB, 2005). Secondly, success in improving the quality of the nation's primary education sector

[49] A Diaspora is essentially the spreading of people from one country or area to another country or area.
[50] For a thorough exploration of the benefits to and barriers of establishing an effective system of remittances between Bangladesh and Bangladeshi's living overseas, refer to Siddiqui (2004).

requires a greater efficiency of tax collection. Bangladesh's current tax-collection-to GDP ratio is 10.2 per cent. Sources indicate that the GoB should try to raise this to at least 15 per cent (ADB, 2005). Despite the above arguments, the real issue likely is that in order to effectively fund primary education, the GoB should reallocate funds away from its military sector and towards the nation's education sector (Islam, 2005, interview).

In addition to the above policy recommendations, it is imperative to note that the root of poor quality primary education in Bangladesh is essentially a poverty rather than policy issue. As such, changing the structure of Bangladesh's primary education sector will not be an easy task. Therefore, an overarching issue for future consideration is the impact of budgetary constraints within the GoB. Budgetary shifts are not easy for any developing nation, and may require a reallocation of funds mainly in the Central budget. Although not considered in this study, a possible strategy for further analysis is a focus on the extraction of resources from GoB Ministries that will be most likely to thrive with growth of high quality manpower in the schools and institutions of higher learning in Bangladesh.

13 Conclusion

Education is a key factor in the development of Bangladesh. Indeed, the GoB has realised the importance of primary education in the contribution of the nation's human capital growth, as evidenced by the numerous different forms of primary education available to families with primary-aged children. In this regard, success has been realised by improving the *quantity* of and access to primary education, yet the policy question is how to incorporate the advantages of both non-formal schools and formal schools into a system that strives to provide *quality* education to the children and communities they serve (CAMPE, 2003).

There are no simple answers, but establishing a system that is accountable and schools that specifically focus on learning outcomes is imperative. In addition, the effectiveness of teacher training and supervision, meaningful involvement of parents in school and better communication between parents and teachers are vital for any quality improvement agenda (Kumar Das, 2005, interview; World Bank, 1997). Of equal importance is a focus on decentralisation, or the promotion of local-level comprehensive planning (at the village, district and upazila level) in order to attain quality education for all children by involving all stakeholders including NGOs, government and government-assisted institutions, community leaders and the local government structure in the process. Providing parents with increased choice of primary educational institution and increasing parental involvement in school management and design is one method of creating accountability and good behaviour among government officials, administrators and teachers.

Appendices

Appendix A – Survey, Original Bangla Version

cv_wgK we`¨vj‡qi QvÎ-QvÎx‡`i Awf fve‡Ki gZvgZ ch‡e¶Y (5 wgwbU)

GB ch‡e¶YwU GKRb gv÷vim QvGx KZK cwiPvwjZ whwb, wmgb †dmvi BDwbfwmwU, †fbwKDfvi, KvbvWv‡Z gv÷vim-Bb-cvewjK cwjwm †cvMv‡g G Aa¨vqbiZ | Avcbvi mwPwšZ gZvgZ GB ch‡e¶YwU‡Z GKRb †¯"Qv‡me†Ki fwgKv cvjb Ki‡e | Avcbvi gZvgZwU m¤úY e¨w³MZ, hv Ab¨ mK‡ji wbKU n‡Z †Mvcb ivLv n‡e| GwU GKwU †Mvcbxq cwimsL¨vb c×wZ - AbMn ceK Avcbvi cwiPqwU cKvk Ki‡ebbv| Avcbvi KZK cKwkZ †Kvb Z_¨vw` Ab¨ Kv‡iv wbKU cKwkZ n‡ebv| Avcbvi AbmÜvb Ges gZvg‡Zi Rb¨ Dc‡iv³ wel‡qi cwiPvj‡Ki mv‡_ wb‡bw³ bv¤v‡i †hvMv‡hv‡Mi Rb¨ Ab‡iva Kivnj (W: b¨vbwm I‡jDBjvi, 001 604 268 7913)| A_ev W: Awjg Dj¨v wgqvb, fvBm P¨v‡Ýji - B›Uvib¨vkb¨vj BDwbfwmwU Ae weR‡bm GwMKvjPvi GÛ †UK‡bvjwR, XvKv, †qvevBi: - 0189224036|

AbMn ceK wb‡æ D‡jwLZ ckmg‡ni mwPwšZ gZvgZ w`‡eb hv Avcbvi mšv‡bi Rb¨ c‡hvR¨|

1) Avcbvi mšv‡bi eqmmxgv KZ ?

❑ 5-7 ermi ❑ 11-13 ermi

❑ 8-10 ermi ❑ Ab¨vb¨.....

2) Avcbvi mšvb wK PvKwiRxex ?

❑ n¨v ❑ bv

3) Avcbvi mšvb wK cv_wgK we`¨vj‡q wM‡q‡Q ?

❑ n¨v ❑ bv

4) ‡Kvb cKv‡ii cv_wgK we`¨vj‡q Avcbvi mšvb Aa¨vqb Ki‡Q ?

❑ miKvwi cv_wgK we`¨vjq

❑ ‡emiKvwi cv_wgK we`¨vjq

❑ evK KZK cwiPvwjZ cv_wgK we`¨vjq

❑ gv`vmv

❑ Ab¨vb¨ .....

5) K) Avcbvi mšv‡bi wK Mn wk¶K Av‡Q ?

❑ n¨v ❑ bv

L) hw` n¨v, Z‡e wk¶K‡K gwmK KZ ‡eZb w`‡q _v‡Kb ?.....UvKv|

6) KLb / hw` Avcbvi mšvb ¯‹j Z¨vM K‡i Ges Zvnvi cv_wgK KviY wK wQj ?

❑ cwievwiK Kv‡R mšv‡bi c‡qvRb nq

❑ Kwl Kv‡R mšv‡bi c‡qvRb nq

❑ cwiev‡ii Rb¨ DcvR‡b mšv‡bi c‡qvRb (N‡ii evB‡i KvR Kivi Rb¨)

❑ mšv‡bi ¯v¯¨ Lvivc

❑ wcZv gvZvi ¯v¯¨ Lvivc

❑ cwievwiK Am"QjZvi Kvi‡Y

❑ covïbvi †_‡K wKQUv `‡i Ae¯v‡bi Kvi‡Y (AwZwi³ mgq Kv‡m Abcw¯wZi Kvi‡Y)

❑ mšv‡bi kvixwiK Ges gvbwmK fvimg¨ mwVK bv _vKvi `i"Y

❑ Ab¨vb¨ .....

7) K) Avcbvi mšvb wK cwicY fv‡e ¯‹j Z¨vM K‡i‡Q ?

❑ n¨v ❑ bv

L) hw` n¨v, ‡Kb ?

8) ‡Kvb Dcj¶wU Avcbvi mšvb‡K cbivq ¯‹‡j cvVv‡Z cfweZ Ki‡Z cv‡i ? (BPQvgZ cib Ki"b)

❑ webvg‡j¨ eB/¯‹‡ji c¶‡_‡K eB c`vb

❑ AwaK wk¶K

❑ wk¶K‡`i gvbDbqb

❑ AwaK miKwi mn‡hwMZv

❑ ‡KvbUvB bv, KviY Avgvi mšvb me`vB ¯‹‡j hvq

❑ Ab¨vb¨ .....

Pjgvb cvZv 1

1) Avcwb †Kvb mvnvh¨ wKsev mn‡hvwMZv A_ev Ab`vb (UvKv ev Lvevi) miKwi A_ev †emiKwi fv‡e MnY K‡ib, Avcwb gv‡m KZ MnY K‡ib ?

- ❑ < 100 UvKv
- ❑ 100-150 UvKv
- ❑ 151-200 UvKv
- ❑ 201 -- 250UvKv
- ❑ A í ..... UvKv
- ❑ AwaK..... UvKv

2) Avcbvi mšvb hw` cv_wgK we`¨vj‡q hvq Zvn‡j Avcwb wK ¯‹j cwiPvjbv KwgwU Ges AwfeveK cwZwbwa msMV‡bi wbqgKvbb m¤ú‡K AewnZ ?

- ❑ n¨v
- ❑ bv
- ❑ Awg Rvwbbv

3) Avcbvi mšv‡bi ¯‹jwUi AeKvVv‡gvMZ w`K¸‡jv‡K Avcwb wK f‡e gj¨vqb K‡ib ?

- ❑ Le fvj
- ❑ fvj
- ❑ ‡gvUvgwU
- ❑ Lvivc
- ❑ Awg Rvwbbv

4) wb‡æi †Kvb mgm¨wU Avcbvi mšv‡bi wk¶vcwZôv‡b Av‡Q ?

- ❑ RvqMv ¯í Zv
- ❑ ¯í cwigvY eB
- ❑ AwaK wk¶v_x
- ❑ `ej cvV`vb
- ❑ Awg Rvwbbv
- ❑ wk ï‡`i Rb¨ chvß †Uwej ¯í Zv
- ❑ cwi¯‹vi cwi”QbZvi Afve
- ❑ eo Kvk i“g
- ❑ Abc‡hvMx e¨ve¯vcbv
- ❑ wKQBbv

5) Avcbvi mšv‡bi ¯‹jwU‡Z wk¶K‡`i Ges AwfeveK‡`i ga¨vKvi m¤úK Dbq‡bi †Kvb cKv‡ii m‡hvM i‡q‡Q wKbv ?

- ❑ n¨v
- ❑ bv
- ❑ Awg Rvwbbv

6) K) Avcbvi mšv‡bi ¯‹jwU wK wk¶K I AwfeveK‡`i gZvgZ cKv‡ki m‡hvM c`v‡b AvMn cKvk K‡i _v‡K ?

- ❑ n¨v
- ❑ bv
- ❑ Awg Rvwbbv

L) hw` n¨v, wK fv‡e ?

- ❑ AwffveK Ges wk¶K hvPvB Ges evQvB
- ❑ mwPeK Ae¯vDbq‡b mK‡ji fwgKv
- ❑ ‡¯”Qv‡mevgjK KvR
- ❑ Ab¨vb¨ .....

e¨vw³MZ Z_¨vw` / Avcbvi m¤úwKZ

7) Avcwb wK ?

- ❑ ci“l
- ❑ gwnjv

8) Avcbvi eqm mxgv KZ ?

- ❑ 18-24
- ❑ 25-34
- ❑ 35-44
- ❑ 45-54
- ❑ 55-64
- ❑ 65+

9) Avcbvi eZgvb Kgms¯v‡bi Ae¯v †Kgb ?

- ❑ cbKvjxb PvKwiRxex
- ❑ ¯íKvjxb PvKwiRxex
- ❑ ‡eKvi
- ❑ Awbqwg Z PvKwiRxex
- ❑ AvZ¥Kgms¯vb
- ❑ Ab¨vb¨ KvR .....

10) Avcbvi m‡ev”P wk¶vMZ †hvM¨Zv wK ?

- ❑ gva¨wgK wk¶v
- ❑ wWwM
- ❑ D”P-gva¨wgK wk¶v
- ❑ W: wWwM
- ❑ K‡jR wWwM
- ❑ ‡Kvb wk¶vMZ †hvM¨Zv bvB
- ❑ gv÷vim wWwM

11) mvavibZ M‡o, Avcbvi msmv‡i mßv‡n ..... UvKv LiP nq|

Avcbvi mn‡hvwMZvi Rb¨ AvšwiK fv‡e ab¨ev`|

cvZv 2

Appendix B – Survey, English Version

PARENT/GUARDIAN OF PRIMARY AGED STUDENT SURVEY (5 MINUTES)

This survey is being conducted by a visiting professor at the International University of Business, Agriculture, and Technology. Your participation in this survey is voluntary and you may stop at any time. Your responses will be confidential and will not be distributed to others. If you have any questions or complaints, you may contact Sandra Nikolic or Dr. Allimulah Miyan at: 891 1297

PLEASE ANSWER THE FOLLOWING QUESTIONS AS THEY APPLY TO YOUR CHILD

1) What is your child's age group?
□ under 3 □ 8-10 years
□ 3-5 years □ 11-13 years
□ 5-7 years □ other _____

2) Is your child employed?
□ yes □ no

3) Does your child attend primary school?
□ yes □ no

4) What type of school does your child attend?
□ government formal primary school
□ BRAC run school
□ Private Primary School
□ madrasa
□ other _____

5a) Do you pay your child's teacher for extra lessons (outside of the classroom) or pay for a private tutor?
□ extra lessons from teacher
□ tutor
□ neither
b) If yes, how much is the teacher/tutor paid per month? _____ taka.

6) When/if your child misses school, what is the primary reason? (check all that apply)
□ child needs to help at home with household chores or other personal/family matters
□ child needs to help with seasonal farm work
□ child needs to help earn money for family (out of home paid work)
□ poor health of child
□ poor health of parent
□ family financial difficulties
□ reside too far from the nearest primary school (difficult to travel to school)
□ child has a mental or physical disability
□ other _____

7a) Have any of your children ever stopped going to school completely? (dropped out of school)
□ yes □ no
7b) If yes, why?
_____
_____

8) What factors would influence you to send your child to school (more often)?
□ free textbooks/school supplies
□ more teachers
□ better teachers
□ government stipend (food or money given by the government for enrolment of your child)
□ None. My child always attends school
□ other _____

9) Would you like your child to complete:
□ primary school
□ secondary education
□ college/university education
□ other _____

10) Is it important to you that girls have as much schooling as boys?
□ yes □ no

11) If you receive a government stipend (money or food) for enrolling your child in school, how much do you receive monthly?
□ <100 taka □ 201-250 taka
□ 100-150 taka □ less _____ taka
□ 151-200 taka □ more _____taka

12) If your child is enrolled in primary schooling, are you aware of the roles and policies of the School Management Committee and the Parent Teacher Associations?
□ yes □ no
□ I don't know

13) How would you rate the physical structure of your child's school? (cleanliness, safety, hygiene, access to sunlight, air circulation)
□ excellent □poor
□ good □ I don't know
□ fair

14) Which of the following is a problem in your child's school?
□ lack of space □ too few desks for children
□ not enough books □ lack of cleanliness
□ too many students □ class sizes too big
□ poor teacher quality □ poor management/administration
□ I don't know □ none

15) Is there opportunity in your child's school for you to have a relationship with the teachers?
□ yes □ no
□ I don't know

16a) Does your child's school facilitate and encourage parent-teacher interaction?
□ yes □ no
□ I don't know

16b) If yes, how?
□ parent-teacher interviews □ involvement in curriculum design
□ volunteering □ other _____

ABOUT YOU/DEMOGRAPHIC INFORMATION

17) Are you: □ male □ female

18) Age:
□ 18-24 □ 45-54
□ 25-34 □ 55-64
□ 35-44 □ 65+

19) What is your current employment status?
□ full-time employed □ part-time employed
□ unemployed □ seasonal worker
□ self-employed □ other _____

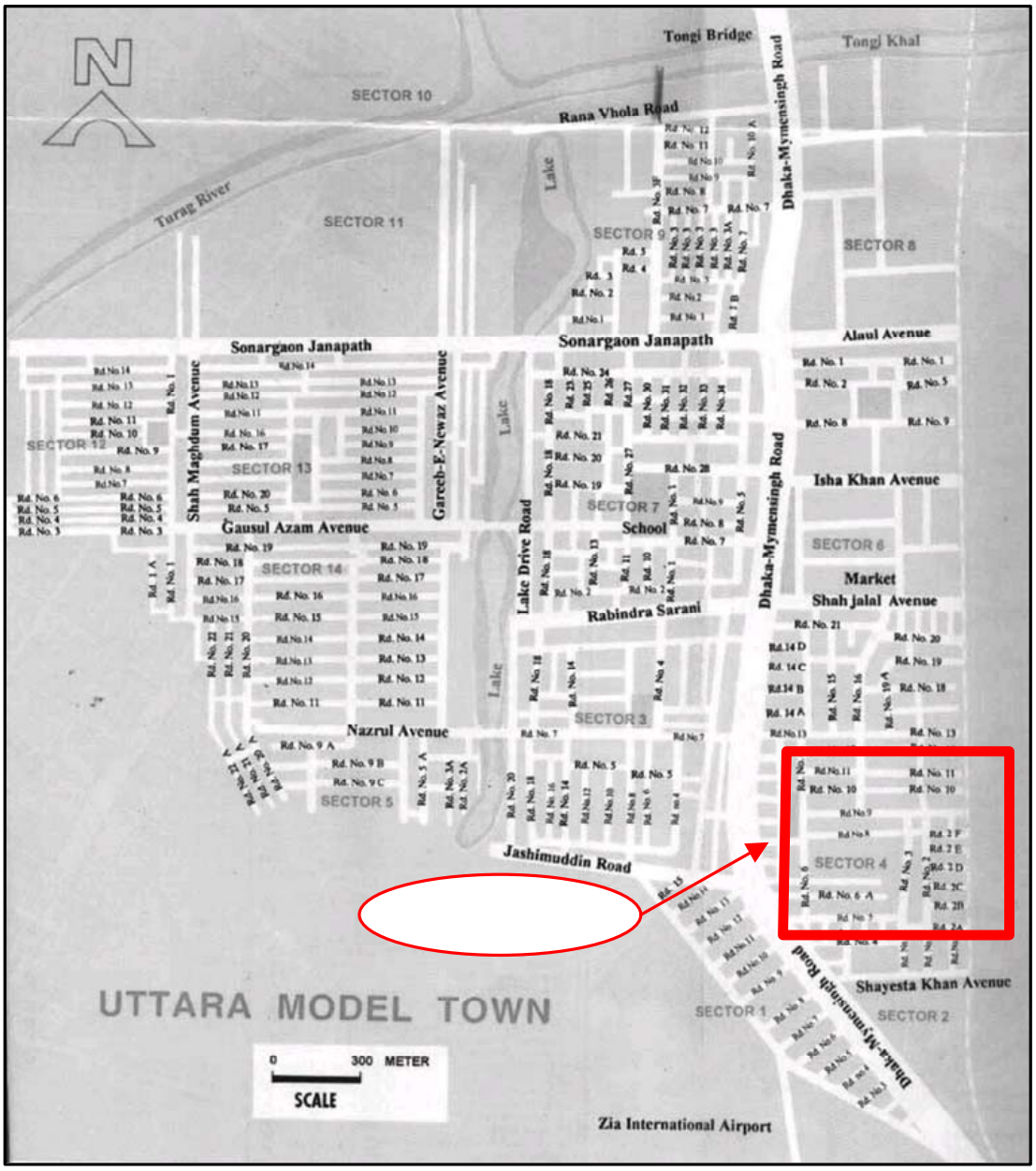
20) What is the highest level of education you have obtained?
□ secondary □ trades certificate
□ college degree □ PhD degree
□ masters degree

21) On average, how much does your family spend on household food per week?_____ taka.

22) How many people live in your household? _____

THANK YOU VERY MUCH FOR YOUR PARTICIPATION

Appendix C – Map of Case Study Area



Appendix D – Summary of Hypotheses

Variable	Hypothesis: Expected to Be Significant?	Hypothesis of Direction
Self-Reported Behaviour Variables		
Recipient of government stipend	Yes	Respondents who receive a stipend larger than Tk.151 are less likely to send their children to public school
Pay Tutor for Extra Scholastic Help	Yes	Parents who pay for tutor's for their children are more likely to send their children to private primary schools
Child Employed	Yes	Parents with employed children are more likely to utilise the public primary school system
Awareness of SMCs and PTAs	Yes	Parents who are not aware of SMCs and PTAs are more likely to send their children to public primary school
Attitudinal Variables		
Factors influencing parents to send their children to school more often: free textbook/school supplies, increased teacher quality, government stipend, more teachers	Yes	Parents who are encouraged to send their children to school more often if more access was provided to such factors are more likely to send their children to public primary school
Educating girls is as important as educating boys	Yes	Parents who place as much importance on educating girls as they do on boys are less likely to send their children to public primary school

Appendix E – Codebook of Survey Responses

Scope of Study

Title: Parent/Guardian of Primary Aged Student Survey
Principal Investigators: Sandra Nikolic
Time Period: July/August 2005
Date of Collection: July 24 to August 7, 2005

Universe: Parent or guardian of primary-aged children living a selected geographical area within and surrounding Sector 4, Uttara Model Town, Dhaka, Bangladesh. Area defined on map.
Data Type: Survey data

Var1 (CHILD_AGE): "What is your child's age group?"

Value	Label
0	Under 3 years
1	3 - 5 years
2	5 - 7 years
3	8 – 10 years
4	11-13 years
5	other

Var2 (CHILD_EMPLOY): "Is your child employed?"

Value	Label
0	no
1	yes

Var3 (ATTEND_PRIM_SCHOOL): "Does your child attend primary school?"

Value	Label
0	no
1	yes

Var4 (TYPE_SCHOOL): "What type of primary school does your child attend?"

Value	Label
0	government formal primary school
1	BRAC-run school
2	Private Primary School
3	Madrasa
4	Other

Var5 (PRIV_TUTOR): "Do you pay your child's teacher for extra lessons (outsode of the classroom) or pay for a private tutor?

Value	Label
0	Extra lessons from teacher
1	Tutor
2	Neither

Var6 (WAGE_TUTOR): "If yes, how much is the teacher/tutor paid per month?"

Value	Label
0	under 100 taka
1	100 – 250 taka
2	251 - 400 taka
3	401 – 550 taka
4	551 – 700 taka
5	701 – 850 taka

6	851 – 1000 taka
7	over 1000 taka

Var7 (REASON_MISS_SCHOOL): "When/if your child misses school, what is the primary reason?" (check all that apply)

Value	Label
0	child needs to help at home with household chores (other family matters)
1	child needs to help with seasonal farm work
2	child needs to help earn money for family (out of home paid work)
3	poor health of child
4	poor health of parent
5	family financial difficulties
6	reside too far from the nearest primary school (difficulty in travelling to school)
7	child has a mental or physical disability
8	other

Var8 (STOP_SCHOOL): "Have any of your children ever stopped going to school completely?"

Value	Label
0	no
1	yes

Var9 "If yes, why?"

Var10 (FACTORS_INFLUENCE): "What factors would influence you to send your child to school (more often)?

Value	Label
0	free textbooks/school supplies
1	more teachers
2	increased teacher quality
3	government stipend (food or money given by the government for enrolment of your child
4	none. My child always attends school
5	other

Var12 (IMPORTANCE_GIRL_ED): "Is it important to you that girls have as much schooling as boys?

Value	Label
0	no
1	yes

Var11 (HOW_MUCH_STIPEND): "If you receive a government stipend (money or food) for enrolling your child in school, how much to you receive monthly?

Value	Label
0	less than 100 taka
1	100-150 taka
2	151-200 taka
3	201-250 taka
4	More than 250 taka

Var12 (AWARE_PTA_SMC): "If your child is enrolled in primary schooling, are you aware of the roles of the School Management Committee's and the Parent Teacher Associations?"

Value	Label
0	no
1	yes
2	I don't know

Var13 (PHYISCAL_STRUCTURE): "How would you rate the physical structure of your child's school? (cleanliness, safety, hygiene, access to sunlight, air circulation)"

Value	Label
0	poor
1	fair
2	good
3	excellent
4	I don't know

Var14 (PROBLEM_SCHOOL): "Which of the following is a problem in your child's school?"

Value	Label
0	lack of space
1	not enough books
2	too many students
3	poor teacher quality
4	too few desks for children
5	lack of cleanliness
6	class sizes too big
7	poor management/administration
8	I don't know
9	None

Var15 (RELATE_WITH_TEACHER): "Is there opportunity in your child's school for you to have a relationship with the teachers?"

Value	Label
0	no
1	yes
2	I don't know

Var16 (FACILITATE_INTERACTION): "Does your child's school facilitate and encourage parent-teacher interaction?"

Value	Label
0	no
1	yes
2	I don't know

Var17 (HOW_INTERACT): "If yes, how?"

Value	Label
0	parent-teacher interviews
1	volunteering
2	involvement in curriculum design
3	other

Var18 (SEX): "Are you:"

Value	Label
0	male
1	female

Var19 (AGE): "Age"

Value	Label
0	18-24
1	25-34
2	35-44
3	45-54
4	55-64
5	65+
6	Other

Var20 (EMPLOY_STATUS): "What is your current employment status?"

Value	Label
0	full-time employed
1	unemployed
2	self-employed
3	part-time employed
4	seasonal worker
5	rickshaw puller
6	other

Var21 (EDUCATION_LEVEL): "What is the highest level of education you have obtained?"

Value	Label
0	secondary
1	college degree
2	masters certificate
3	trades certificate
4	PhD degree

Var22 (HOUSEHOLD_SPEND): "On average, how much does your family spend in household food per week?"

Value	Label
0	less than 100 taka
1	100 – 300 taka
2	301 – 500 taka
3	501 – 700 taka
4	701 – 900 taka
5	901 – 1000 taka
6	1001 – 1200 taka
7	1201 – 1400 taka
8	More than 1400 taka

Var23 (HOUSEHOLD_POP): "How many people live in your household?"

Value	Label
0	2-4
1	5-7
2	7+

Appendix F – Summary, Education for All Agreement

Article 1: Meeting Basic Learning Needs

- Every person – child, youth and adult – shall be able to benefit from educational opportunities designed to meet their basic learning needs.
- Includes essential learning tools (literacy, oral expressions, numeracy, and problem solving), and basic learning content (knowledge, skills, values, and attitudes).

Article 2: Shaping the Vision to serve the basic learning needs of all

- Requires an 'expanded vision' that surpasses present resource levels, institutional structures, curricula, and conventional delivery systems ,while building on the best in current practices
- Universalise access and promotion of equity
- Enhancing learning environments

Article 3: Universalising Access and promoting equity

- Basic education should be provided to all children, youth and adults
- Equal opportunities for all to achieve and maintain an acceptable level of learning
- Promote the education of girls and women, and other disadvantaged groups (poor, ethnic minorities, physically and mentally disabled)

Article 4: Focussing on Learning

- Focus education on acquisition and outcome, rather than exclusively upon enrolment, continued participation and completion of certificate requirements
- Active and participatory approaches are valuable

Article 5: Broadening the Means and Scope of Basic Education

- There is a need for early childhood education, as learning begins at birth
- The main delivery system for the basic education of children outside the family is primary schooling
- The basic learning needs of youth and adults are diverse and should be met through a variety of delivery systems

Article 6: Enhancing the Environment for Learning

- Learning does not take place in isolation, therefore societies must ensure that all learners receive the nutrition, health care and general physical and emotional support they need to participate actively and benefit from their education

Article 7: Strengthening Partnerships

- Regional, national and local educational authorities have a unique obligation to provide basic education for all, but they cannot be expected to supply every human, financial, or organisational requirement for the task

Article 8: Developing a Supportive Policy Context

- Supportive policies in the social, cultural, and economic sectors are required in order to realise the full provision and utilisation of basic education for individual and societal improvement
- Political commitments are necessary in order to provide quality basic education

Article 9: Mobilising Resources

- It is essential to mobilise existing and new financial human resources, public, private and voluntary

Article 10: Strengthening International Solidarity

- Meeting basic learning needs constitutes a common and universal human responsibility and fair economic relations

(Source: UNESCO, 2001)

Appendix G – The Six Dakar Goals (2000)

Goal 1	**Early Childhood Care and Education (ECCE)** Progress towards wider access remains slow, with children from disadvantaged backgrounds more likely to be excluded from ECCE. In many developing countries, ECCE programmes are staffed by teachers with low qualifications.
Goal 2	**Universal Primary Education (UPE)** The number of out-of-school children is declining, having fallen from 106.9 million in 1998 to 103.5 million in 2001. While there has been progress, it is slow, and current improvements remain too slow to achieve UPE by 2015. Completion of primary education remains a major concern: delayed enrolment is widespread, survival rates to grade 5 are low, and grade repetition is frequent.
Goal 3	**Youth and Adult Learning** Efforts to raise the level of skills among youths and adults are marginal in the few developing countries that have conducted evaluations of skills development programmes. Progress remains difficult on a global basis.
Goal 4	**Literacy** Approximately 800 million adults were illiterate in 2002; 70 percent of them live in nine countries largely belonging to sib-Saharan Africa and East and South Asia, notably India, China, ***Bangladesh***, and Pakistan.
Goal 5	**Gender** While many countries in the world have made significant progress towards gender parity at primary levels over the past decade, large gaps remain, particularly in the Middle East, sub-Saharan Africa, South and West Asia. Girls accounted for approximately 57 percent of the out-of-school primary aged children worldwide in 2001 and for more than 60% in Middle Eastern, South and West Asian nations. Girls' participation remains substantially lower than boys' in seventy-one out of 175 countries at the primary level. Almost two-thirds of the world's adult illiterates are women.
Goal 6	**Quality** Countries that are farthest from achieving goals 1 through 5 are argued to be farthest from achieving goal 6. Several indicators provide information on dimensions of quality. Public expenditure on education represents a higher proportion of GDP in rich countries, where the EFA goals are already achieved, than in poorer countries, where the coverage of under-resourced systems needs to be both expanded and improved. Spending has increased over the past decade in developing countries; however pupil-teacher ratios remain high. In many low-income countries, teachers often do not meet the minimum standards for entry into teaching and many have not fully mastered the curriculum. Data from national and international test scores show that low achievement is widespread in most developing countries.

(Source: UNESCO, 2001)

Appendix H – Elite Interview Questions

In a non-formal, open interview format, Interviewees were asked a variety of questions regarding the state of primary education in Bangladesh, including:

- What are some constraints, and successes of education programme partnerships between the GoB and NGOs?
- What can be done to strengthen local level planning and management for disadvantaged and hard-to-reach school children?
- What can donor countries do to contribute to 'Education for All' in Bangladesh?
- How can quality of education be ensured in all types of schools?
- How can equity be guaranteed in primary education?
- What can be done to eliminate child labour in Bangladesh, and encourage enrolment of non-enrolled children?
- What should be included in current curriculum in order to raise enrolment numbers?
- What do you think are pressing policy issues concerning primary education in Bangladesh?
- What are the functions of SMCs and PTAs? Do they function as planned?

Appendix I – Sample Population Representativeness

	Study Sample	National Population
Sex Ratio (male to female)	1.33	1.05
Unemployment Rate	24.60%	35%
Impoverished Population	46.90%	45%

(Sources: Bangladesh Bureau of Statistics, 2002; CIA World Fact Book, 2005; United Nations,2005)

Appendix J – Crosstab, Choice of Primary School and Awareness of SMCs and PTAs

			If your child is enrolled in primary schooling, are you aware of the roles of the SMCs and the PTAs?				
			no	yes	I don't know	child not enrolled in primary schooling	Total
What type of primary school does your child attend?	government formal primary school	Count	36	38	49	0	123
		% within type of primary school	29.3%	30.9%	39.8%	.0%	100.0%
		% of Total	10.3%	10.9%	14.0%	.0%	35.2%
	BRAC run school	Count	7	19	13	0	39
		% within type of primary school	17.9%	48.7%	33.3%	.0%	100.0%
		% of Total	2.0%	5.4%	3.7%	.0%	11.2%
	Private Primary School	Count	7	81	38	0	126
		% within type of primary school	5.6%	64.3%	30.2%	.0%	100.0%
		% of Total	2.0%	23.2%	10.9%	.0%	36.1%
	Madrasa	Count	3	6	8	0	17
		% within type of primary school	17.6%	35.3%	47.1%	.0%	100.0%
		% of Total	.9%	1.7%	2.3%	.0%	4.9%
	Does not attend school	Count	0	0	0	44	44
		% within type of primary school	.0%	.0%	.0%	100.0%	100.0%
		% of Total	.0%	.0%	.0%	12.6%	12.6%
Total		Count	53	144	108	44	349
		% within type of primary school	15.2%	41.3%	30.9%	12.6%	100.0%
		% of Total	15.2%	41.3%	30.9%	12.6%	100.0%

Appendix K – Crosstab, Choice of Primary School and Concern over School Management and Administration

			Is poor management/administration a problem in your child's school?			Total
			no	yes	child not enrolled in school	
Type of primary school	government formal	Count	56	67	0	123
		% type of primary school	45.5%	54.5%	.0%	100.0%
		% management and admin. concern	25.7%	74.4%	.0%	35.2%
		% of Total	16.0%	19.2%	.0%	35.2%
	BRAC run	Count	36	3	0	39
		% type of primary school	92.3%	7.7%	.0%	100.0%
		% management and admin. concern	16.5%	3.3%	.0%	11.2%
		% of Total	10.3%	.9%	.0%	11.2%
	Private Primary	Count	107	19	0	126
		% type of primary school	84.9%	15.1%	.0%	100.0%
		% management and admin. concern	49.1%	21.1%	.0%	36.1%
		% of Total	30.7%	5.4%	.0%	36.1%
	madrasa	Count	17	0	0	17
		% type of primary school	100.0%	.0%	.0%	100.0%
		% management and admin. concern	7.8%	.0%	.0%	4.9%
		% of Total	4.9%	.0%	.0%	4.9%
	Does not attend	Count	2	1	41	44
		% type of primary school	4.5%	2.3%	93.2%	100.0%
		% management and admin. concern	.9%	1.1%	100.0%	12.6%
		% of Total	.6%	.3%	11.7%	12.6%
Total		Count	218	90	41	349
		% type of primary school	62.5%	25.8%	11.7%	100.0%
		% management and admin. concern	100.0%	100.0%	100.0%	100.0%
		% of Total	62.5%	25.8%	11.7%	100.0%

Appendix L – Likelihood Ratio Test

Effect	Likelihood Ratio Tests		
	Chi-Square	df	Sig.
Intercept	.000	0	.
EARN_MONEY	17.155	4	.002
SCHOOL_FAR	9.445	4	.050
BETTER_TEACHERS	9.627	4	.047
PROB_TEACHERS	14.836	4	.005
PROB_POOR_ADMIN	52.134	4	.000
TUTOR_WAGE	62.205	16	.000
EMPLOY_STATUS	34.936	24	.069
GOVT_STIPEND	7.336	4	.119
MORE_TEACHERS	3.428	4	.489

The above table indicates that there are significant relationships between the independent variables EARN_MONEY, BETTER_TEACHERS, PROB_TEACHERS, PROB_POOR_ADMIN, TUTOR_WAGE and the dependent variable (0.002, 0.05, 0.047, 0.005, 0.000, 0.000 < 0.05).

Appendix M – Presence of Relationship between Variables

The presence of a relationship between the dependent variable and a combination of independent variables in based on the statistical significance of the final model chi-square in the *Model Fitting Information Table* below (Schwab, 2005).

Model	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	555.776			
Final	301.855	253.921	45	.000

The above table indicates that the probability of the model chi-square (434.152) was 0.000, less than or equal to the level of significance set at 0.05. As a result, the null hypothesis that there was no difference between the model before the seven significant independent variables were included and the model with these variables was rejected (Schwab, 2005). Essentially, the above table illustrates that there is a relationship between the independent and dependent variables.

Appendix N – Utility of the Regression Model

As per Schwab (2005), a "useful measure to assess the utility of a multinomial logistic regression model" is by determining the by chance accuracy rate, which is established by calculating the proportion of cases for each group based on the number of cases within each group in the *Case Processing Summary* table. Literature maintains that in order to characterise the regression model as appropriate, there should be a 25 per cent improvement over the rate of accuracy achievable by chance alone (Schwab, 2005). This improvement is called the by chance accuracy.

Case Processing Summary

		N	Marginal Percentage
What type of primary school does your child attend?	Government formal primary school	123	40.3%
	BRAC run school	39	12.8%
	Private Primary School	126	41.3%
	Madrasa	17	5.6%

The proportions of cases in each group are squared and summed (Schwab, 2005).

For example: $0.403^2 + 0.128^2 + 0.413^2 + 0.056^2 = 0.352$

$0.352 \times 1.25 = 0.406$

Therefore, the proportional by chance accuracy criteria is 40.6%.

In order the label the chosen model as useful, the final calculated percentage in the *Classification Table* must by equal to or greater than the percentage calculated from the proportional chance (Schwab, 2005). The final percent in the classification table is 69.5 per cent, which is greater than 40.6 per cent. Thus, the criteria for classification accuracy are indeed satisfied.

Appendix O – Multicollinearity Statistics

According to Fields (2000), multicollinearity, or the multiple counting of similar data, can be detected in logistic regression when tolerance levels are less than 0.1 and the variance inflation factor (VIF) scores are greater than 10.

Model		Collinearity Statistics	
		Tolerance	VIF
	Does your child miss school in order to help earn money for family (out of home paid work)?	.128	7.838
	Does your child miss school because you reside too far from the nearest primary school?	.132	7.565
	Would more teachers influence you to send your child to school more often?	.951	1.051
	Would better teachers influence you to send your child to school if they are not already enrolled, or more often if they are enrolled in school?	.888	1.126
	Would a government stipend influence you to send your child to school if they are not already enrolled, or more often if they are enrolled in school?	.746	1.340
	Is poor teacher quality a problem in your child's school?	.186	5.362
	Is poor management/administration a problem in your child's school?	.192	5.213
	What is your current employment status?	.876	1.141
	What do you pay your child's tutor?	.887	1.127

The above table illustrates the tolerance and VIF scores for all independent variables included in the model. Additionally, in multiple logistic regressions, multicollinearity can be determined by assessing the standard error values for all b coefficients, where a standard error larger than 2.0 for any value excluding the intercept value indicates possible multicollinearity among independent variables (Schwab, 2005). According to these criteria, the current analysis experiences no collinearity problems.

Appendix P – Parameter Estimates of Variables in the Equation

What type of primary school does your child attend?(a)		B	Sig.	Exp(B)
BRAC run school	Intercept	-1.837	.205	
	[EARN_MONEY=0]	-.353	.538	.702
	[EARN_MONEY=1]	0	.	.
	[SCHOOL_FAR=0]	**1.480**	**.046**	**4.395**
	[SCHOOL_FAR=1]	0	.	.
	[MORE_TEACHERS=0]	-.654	.223	.520
	[MORE_TEACHERS=1]	0		
	[BETTER_TEACHERS=0]	-.066	.883	.936
	[BETTER_TEACHERS=1]	0	.	.
	[GOVT_STIPEND=0]	.567	.233	1.763
	[GOVT_STIPEND=1]	0		
	[PROB_TEACHERS=0]	-.438	.356	.645
	[PROB_TEACHERS=1]	0	.	.
	[PROB_POOR_ADMIN=0]	**2.591**	**.000**	**13.342**
	[PROB_POOR_ADMIN=1]	0	.	.
	[TUTOR_WAGE=.00]	-.634	.313	.531
	[TUTOR_WAGE=1.00]	-.627	.514	.534
	[TUTOR_WAGE=2.00]	-1.304	.255	.271
	[TUTOR_WAGE=3.00]	-15.671	.991	1.56E-007
	[TUTOR_WAGE=4.00]	0	.	.
	[EMPLOY_STATUS=0]	-2.041	.168	.130
	[EMPLOY_STATUS=1]	-2.104	.150	.122
	[EMPLOY_STATUS=2]	**-3.170**	**.029**	**.042**
	[EMPLOY_STATUS=3]	-1.839	.204	.159
	[EMPLOY_STATUS=4]	**-3.511**	**.027**	**.030**
	[EMPLOY_STATUS=5]	.150	.	1.161
	[EMPLOY_STATUS=6]	0	.	.
Private Primary School	Intercept	12.326	.998	
	[EARN_MONEY=0]	**2.753**	**.010**	**15.685**
	[EARN_MONEY=1]	0	.	.
	[SCHOOL_FAR=0]	**1.331**	**.034**	**3.786**
	[SCHOOL_FAR=1]	0	.	.
	[MORE_TEACHERS=0]	-.002	.997	.998
	[MORE_TEACHERS=1]	0	.539	1.999
	[BETTER_TEACHERS=0]	**.734**	**.028**	**2.083**
	[BETTER_TEACHERS=1]	0(b)	.	.
	[GOVT_STIPEND=0]	**1.191**	**.417**	**3.290**
	[GOVT_STIPEND=1]	0		
	[PROB_TEACHERS=0]	**1.060**	**.003**	**2.886**
	[PROB_TEACHERS=1]	0	.	.
	[PROB_POOR_ADMIN=0]	**1.491**	**.000**	**4.443**
	[PROB_POOR_ADMIN=1]	0	.	.
	[TUTOR_WAGE=.00]	-.902	.126	.406
	[TUTOR_WAGE=1.00]	**1.600**	**.009**	**4.954**
	[TUTOR_WAGE=2.00]	**1.755**	**.002**	**5.783**

	[TUTOR_WAGE=3.00]	**2.333**	**.000**	**10.313**
	[TUTOR_WAGE=4.00]	0	.	.
	[EMPLOY_STATUS=0]	-19.218	.997	4.51E-009
	[EMPLOY_STATUS=1]	-18.739	.997	7.28E-009
	[EMPLOY_STATUS=2]	-19.554	.997	3.22E-009
	[EMPLOY_STATUS=3]	-19.041	.997	5.38E-009
	[EMPLOY_STATUS=4]	-20.499	.997	1.25E-009
	[EMPLOY_STATUS=5]	-35.398	.996	4.23E-016
	[EMPLOY_STATUS=6]	0	.	.
Madrassa	Intercept	-34.689	.999	
	[EARN_MONEY=0]	16.227	.993	11150179.320
	[EARN_MONEY=1]	0	.	.
	[SCHOOL_FAR=0]	16.351	.993	12619099.328
	[SCHOOL_FAR=1]	0	.	.
	[MORE_TEACHERS=0]	.693	.377	1.999
	[MORE_TEACHERS=1]	0		
	[BETTER_TEACHERS=0]	**1.679**	**.024**	**5.361**
	[BETTER_TEACHERS=1]	0	.	.
	[GOVT_STIPEND=0]	1.002	.235	2.724
	[GOVT_STIPEND=1]	0		
	[PROB_TEACHERS=0]	.133	.855	1.142
	[PROB_TEACHERS=1]	0	.	.
	[PROB_POOR_ADMIN=0]	17.466	.989	38479680.118
	[PROB_POOR_ADMIN=1]	0	.	.
	[TUTOR_WAGE=.00]	-.241	.775	.786
	[TUTOR_WAGE=1.00]	.271	.794	1.311
	[TUTOR_WAGE=2.00]	-.703	.574	.495
	[TUTOR_WAGE=3.00]	.855	.360	2.352
	[TUTOR_WAGE=4.00]	0	.	.
	[EMPLOY_STATUS=0]	-16.789	.999	5.11E-008
	[EMPLOY_STATUS=1]	-18.932	.999	6.00E-009
	[EMPLOY_STATUS=2]	-17.391	.999	2.80E-008
	[EMPLOY_STATUS=3]	-16.239	.999	8.86E-008
	[EMPLOY_STATUS=4]	-33.292	.999	3.48E-015
	[EMPLOY_STATUS=5]	-30.650	.999	4.88E-014
	[EMPLOY_STATUS=6]	0	.	.

Appendix Q – Crosstab, Respondent Employment and Economic Status

			Household expenditure divided by household population						Total
			4-464 (below poverty line)	465-924 (above poverty line)	925-1384 (lower middle class)	1385-2844 (middle class)	1845-2304 (upper middle class)	2305+ (wealthiest group)	
Employ-ment status	**full-time employed**	Count	6	11	19	17	4	11	68
		% eco. status	6.5	15.5	25.7	23.6	25.0	47.8	19.5
	Unemploy-ed	Count	25	16	16	15	5	9	86
		% eco. status	26.9	22.5	21.6	20.8	31.3	39.1	24.6
	Self employed	Count	20	22	19	25	2	1	89
		% eco. status	21.5	31.0	25.7	34.7	12.5	4.3	25.5
	Part time employed	Count	19	12	15	11	3	2	62
		% eco. status	20.4	16.9	20.3	15.3	18.8	8.7	17.8
	Seasonal worker	Count	9	8	4	4	2	0	27
		% eco. status	9.7	11.3	5.4	5.6	12.5	.0	7.7
	Rickshaw puller	Count	13	1	1	0	0	0	15
		% eco. status	14.0	1.4	1.4	.0	.0	.0	4.3
	other	Count	1	1	0	0	0	0	2
		% eco. status	1.1	1.4	.0	.0	.0	.0	.6
Total		Count	93	71	74	72	16	23	349
		% eco. status	100.0	100.0	100.0	100.0	100.0	100.0	100

Appendix R – Bicycle-Drawn School Carriage – Sector 6, Uttara Model Town

(Source: Sandra Nikolic, 2005)

(*Source: John Richards, 2005)*

Appendix S – Stakeholder Responsiveness Scoring

	Alternatives				
	Status Quo	Alternative 2 - Replace Stipends with Vouchers	Alternative 3 - Decentralisation	Alternative 4 - Stricter Teacher-Training Programmes	Alternative 5 - Pressure Network
Stakeholders					
NGOs	×	✓	✓	✓	✓
Private Sector (including non-registered, non-formal schools)	×	✓	✓	✓	✓
Parents and Communities	×	✓	✓	✓	✓
Teachers Organisations	×	?	?	×	✓
GoB	✓	?	×	?	×
Total*	1/5	3/5	3/5	3/5	4/5

Bibliography

Works Cited

Ahmed, M. & S. Nath. (2005). Quality With Equity The Primary Education Agenda. Education Watch Report 2003-04. Dhaka: Campaign for Popular Education, Bangladesh (CAMPE)

Ahmed, S. (2005). Testimony of Samina Ahmed to U.S. Senate Foreign Relations Committee. International Crisis Group. Retrieved on November 24, 2006 from International Crisis Group Website: http://www.crisisgroup.org/home/index.cfm?id=3407&l=1

Ahmed, S. S. & Bould, S. (2004). "One Daughter is Worth 10 Illiterate Sons: Reframing the Patriarchal Family. *Journal of Marriage and Family, Volume 66, Issue 5*. Pp. 1332.

.Angrist, J. & Guryan, J. (2003). Does Teacher Testing Raise Teacher Quality? Evidence from State Certification Requirements. *NBER Working Paper, Number 9545*.

Archer, D. (1994). The Changing Roles of Non-Governmental Organisations in the Field of Education (In the Context of Changing Relationships with the State).*International Journal of Educational Development, Volume14, Number 3*. Pp. 223-232.

Asian Development Bank [ADB]. (2002). *Promoting Effective Schooling through Education Decentralisation in Bangladesh, Indonesia, and Philippines*. ADB, 2002.

Asian Development Bank [ADB]. (2005). *Quarterly Economic Update Bangladesh*. Retrieved October 12, 2006 from http://www.adb.org/Documents/Economic_Updates/BAN/2005/Mar-05.pdf

Asian Development Bank [ADB]. (n.d.). *Privatisation of Education*. Retrieved February 9, 2006 from http://www.adb.org/Documents/Books/Education_NatlDev_Asia/Costs_Financing/privatization_education.pdf

Bainbridge, W.L. & Sundre, S. M. (1992). Work and Family Benefits for Parents of School-Age Children. *Employee Benefits Journal, Volume 21*.

Banagiri. V. (1999). *What Communities Can Teach Themselves: Self-Managed Learning in Southern India*. Ashoka. Retrieved February 9, 2006 from http://www.changemakers.net/journal/99june/banagiri.cfm

Bangla2000. (2000). *Geography.* Retrieved September 14, 2006 fromhttp://www.bangla2000.com/Bangladesh/geography.shtm

Bangladesh Bureau of Educational Information and Statistics [BANBEIS]. (2005). Retrieved December 16, 2006 from http://www.banbeis.gov.bd/

Bangladesh Bureau of Statistics [BBS]. (2002). *National Data Bank*. Retrieved February 20, 2006 from http://www.bbsgov.org/

Behrman, J. R., Deolalikar, A. B. & and Soon, L-Y. (1997). *Report and Recommendation of the President to the Board of Directors on a Proposed Loan to the People's Republic of Bangladesh for the Second Primary Education Sector Project*. Retrieved February 1, 2006, from Asian Development Bank: http://www.adb.org/Documents/PCRs/BAN/pcr-ban-27148.pdf

Blaug, M.(1970). *An Introduction to the Economics of Education*. The Penguin Press. London, England.

Benoliel, S. (2003). *Strengthening Education in the Muslim World. Summary of the Desk Study.* Issue Paper. Agency for International Development (Department of State), Washington, D.C., Bureau for Program Policy and Coordination.

Campaign for Popular Education [CAMPE]. (2001). Education Watch Report 2001. Renewed Hope Daunting Challenges: State of Primary Education in Bangladesh.

Campaign for Popular Education Bangladesh [CAMPE]. (2000). Education Watch Report 2000. A Question of Equality: State of Primary Education in Bangladesh. Volume 1.

Campaign for Popular Education [CAMPE]. (2003). *About CAMPE: Background*. Retrieved on January 22, 2006 from http://www.campebd.org/content/about_us.htm

Care Bangladesh. (2005). *Education Programme: Promote Quality and Ensure Retention of Girls*. Retrieved February 16, 2006 from http://www.carebd.org/education.html

Chitkara, M.G. (1997). *Bangladesh: From Mujib to Hasina*. APH Publishing Corporation. New Delhi, India.

CIA World Factbook. (2005). *Bangladesh.* Retrieved November 27, 2006 fromhttp://www.cia.gov/cia/publications/factbook/geos/bg.html

Drewes, C. C. (2003). Complementary Actors of Competitive Foes: The provision of Primary Education by BRAC and the Bangladeshi Government. Monograph, International Comparative Education, School of Education, Stanford University.

Frederiksson, U. (1999). *Teachers' Perspectives on Ten Years of Education for All*. United Nations Educational, Scientific, and Cultural Organisation [UNESCO]. Retrieved February 9, 2006 from http://www.unesco.org/education/partners/cco/English/Teachers.htm

Gottlieb, S. (1999). *The Accountability Chain: Engaging Parents, Students, Teachers, Principals, Communities, and Private Sector in Education Improvement*. Retrieved February 9. 2006 from Ashoka website: http://www.changemakers.net/journal/99june/gottlieb.cfm

Haiplik, B. (2003). *BRAC's Non-Formal Primary Education (NFPE) Teacher- Training Program. Panel Paper – Summary*. Paper presented at the Annual Meeting of the Comparative and International Education Society (CIES).

Keen, S. (1998). *The Partition of India*. Retrieved February 24, 2006 from http://www.english.emory.edu/Bahri/Part.html

McCauley, A. P., Robey, B., Blanc, A.K., & Geller, J.S. (1994). Contraception and Education. The John Hopkins School of Public Health. *Population Reports, Volume 22*, *Number 1*.

National Democratic Institute for International Affairs [NDI]. (2003). Study Circle Discussion Guide: Transparency and Accountability in the Primary Education Sector. Study Circle Project. *National Democratic Institute for International Affairs, Swedish International Development Cooperation Agency, United States Agency for International Development.*

Organisation for Economic Co-Operation and Development [OECD]. (2003). *Combating Child Labour: A Review of Policies*. OECD.

Patrinos, H. A. (2001). Education Vouchers in Developing Countries. The Heartland Institute. *School Reform News*. Retrieved January 3, 2006 from http://www.heartland.org/Article.cfm?artId=10172

Ramirez, F. & Boli, J. (1987). The Political Construction of Mass Schooling: European Origins and Worldwide Institutionalization. *Sociology of Education 60:2-17.*

Richards, J. (forthcoming). Can Aid Work? Thinking About Development Strategy.

Ryan, J. G, and Meng, X. (2004). The Contribution of IFPRI Research and the Impact of the Food for Education Programme in Bangladesh on Schooling Outcomes and Earnings. Impact Assessment Discussion Paper, Retrieved February 6, 2006 from *International Food Policy Research Institute* (IFPRI) website: http://www.ifpri.org/impact/ia22.htm

Schwab, J. (2005). *Multinomial Logistic Regression, Basic Relationships.* Retrieved January 10, 2006 from http://www.utexas.edu/courses/schwab/sw388r7/SolvingProblems/SolvingHomeworkProblems.htm

Schugurensky, D. (2002). 1961: *Theodore W. Schultz publishes Investment in Human Capital. History of Education*. Retrieved February 21, 2006 from http://fcis.oise.utoronto.ca/~daniel_schugurensky/assignment1/1961schultz.html

Shah, P. J. (2005). *Equity in Education*. Centre for Civil Society. Business Standard. Retrieved February 9, 2005 from http://www.ccsindia.org/parth_BS_13july05.asp

Siddiqui, T. (2004). *Institutionalising Diaspora Linkage: The Emigrant Bangladeshis in UK and USA*. Ministry of Expatriates' Welfare and Overseas Employment (GoB) and International Organisation For Migration.

Sunkotomarn, P. (2003). *Girls' Educational Outcomes in Bangladesh and the Role of Non-formal Schools.* Retrieved February 20. 2006 from London School of Economics website: http://www.econ.yale.edu/seminars/NEUDC03/sunkontomam.pdf

Tietjen, K. (2003). The Bangladesh Primary Education Stipend Project: A Descriptive Analysis. The Partnership for Sustainable Strategies on Girls' Education. Retrieved January 22 from http://siteresources.worldbank.org/EDUCATION/Resources/278200-1099079877269/547664-1099080014368/BangladeshStipend.pdf

Tietjen, K., Rahman, A. & Spaulding, S. (2004). Time to Learn: Teachers' and Students' Use of Time in Government Primary Schools. Basic Education and Policy Support (BEPS) Activity. United States Agency for International Development. Retrieved February 20, 2006 from http://www.beps.net/publications/BangladeshTimetoLearnStudyFINAL.pdf

Virtual Bangladesh. (2005). History: Overview. Virtual Bangladesh. Retrieved October 14 from http://www.virtualbangladesh.com/history/overview.html.

United Nations Children's Fund [UNICEF]. (2006). Girls Education Strategy for Bangladesh. Retrieved January 27 from http://www.unicef.org/bangladesh/education_460.htm

United Nations Statistics Division. (2005). Retrieved November 21 from http://unstats.un.org/unsd/default.htm

United Nations Educational, Scientific, and Cultural Organisation [UNESCO]. (2001). World Declaration on Education for All. Retrieved September 8 fromhttp://www.unesco.org/education/efa/ed_for_all/background/jomtien_declaration.shtml

United Nations Educational, Scientific, and Cultural Organisation [UNESCO]. (2005). EFA Global Monitoring Report. Chapter 1, Understanding Education Quality. Retrieved January 24 from http://www.unesco.org/education/gmr_download/chapter1.pdf

The United Nations Children's Fund (UNICEF). (2005). Annual Report. *Covering January 2004 through 31 December 2004.*

The United Nations Development Programme [UNDP]. (2003). Human Development Report 2004. National Data. Retrieved March 13, 2006 from http://hdr.undp.org/statistics/data/countries.cfm?c=BGD

West, E. G. (1996). Education Vouchers in Practice and Principle. Human Capital Development Operations Policy Working Papers. Retrieved February 9, 2006 from http://www.worldbank.org/html/extdr/hnp/hddflash/workp/wp_00064.html

The World Bank. (2001). Engendering Development: Through Gender Equality in Rights, Resources, and Voice. The International Bank or Reconstruction and Development/The World Bank. USA

World Education Profiles. (2004)."Bangladesh. Retrieved February 22, 2006 from http://www.wes.org/ca/wedb/bangladesh/bgedov.htm

Interviews

Individual	Organisation
Tarik-ul-Islam	United Nations Development Programme (UNDP)
Graham White	BRAC Donor Liaison Office
Fatima Akhtery (Rehana)	Local Government Engineering Department
Sharmin Yusuf (Elora).	Local Government Engineering Department
Tapon Kumar Das	Campaign for Popular Education (CAMPE)
Jacquiline Mattingly	Asian Development Bank (ADB)
Nurul Islam	UNICEF

Works Consulted

Ahmed, A.F. S. (2001). *Perspectives on History, Society, and Politics.* Tandrita Readers Choice. Kolkata, India.

The Economist. (April 1999). Sorting Out School Choice. *Volume 352, Issue 8135.*

Singha, A. C. (2000). Statistical Pocketbook of Bangladesh 2000. Bangladesh Bureau of Statistics; Statistics Division, Ministry of Planning, Dhaka, Bangladesh

Tomasevski, K. (n.d.) *The Right to Education. Commission on Human Rights, Economic, Social and Cultural Rights*. Retrieved December 20, 2006 from

http://www.right-to-education.org/content/unreports/unreport12prt1.html#top

Umar, B. (2004). The *Emergence of Bangladesh: Class Structure in East Pakistan (1947-1958).* Oxford University Press. Karachi, Pakistan