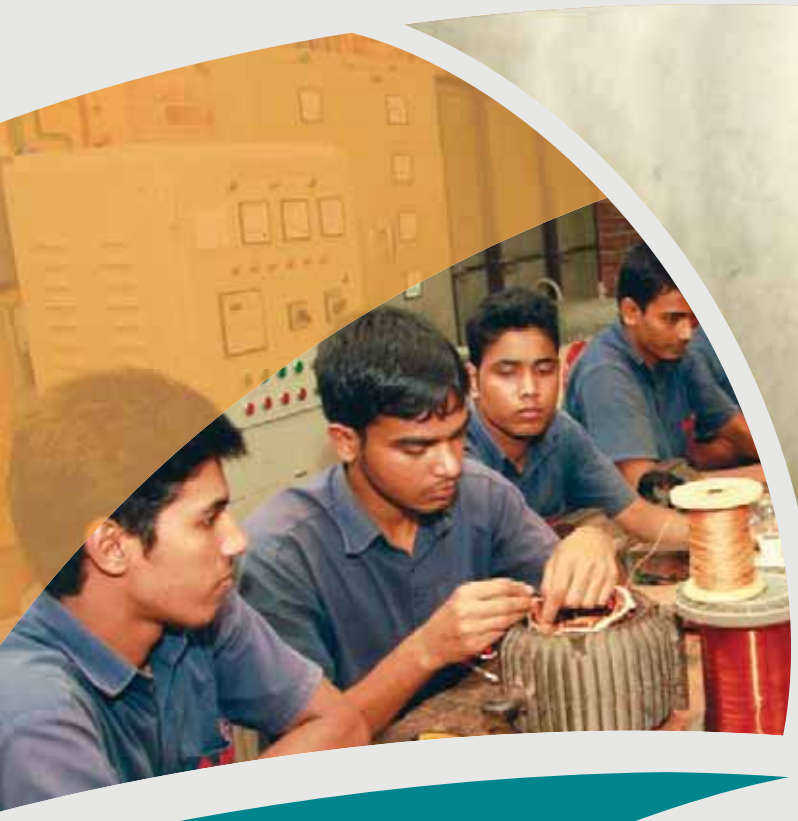
Education Watch 2016

Literacy, Skills, Lifelong Learning

SDG4 in Bangladesh: Where Are We



Campaign for Popular Education (CAMPE)
Bangladesh

www.campebd.org

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SDG4 in Bangladesh: Where Are We

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SDG4 in Bangladesh: Where Are We

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Contents

Preface

This fifteenth *Education Watch* Report has attempted to identify status and progress in education along with the future needs, in terms of Literacy, Skills acquisition, and Lifelong learning opportunities Keeping in view Sustainable Development Goal no-4 (SDG -4) and Education 2030 Agenda. The Report titled ***Literacy, Skills, Lifelong Learning SDG4 in Bangladesh: Where Are We*** has tried to identify the status, key concerns of civil society and suggested policy implications *to* meet the challenges related to transformation of global economy, social development, peace and non-violence, and lifelong learning.

SDGs are much more comprehensive compared to MDGs and EFA goals and included a standalone goal (SDG 4) for education along with 7 targets and 3 means of implementation. The World Education Forum 2015 adopted the goal to ***ensure inclusive and equitable quality education and promote lifelong learning opportunities for all*** by next 15 years which is known as Education 2030.

Four out of seven targets of SDG4 are related to literacy, skills and lifelong learning which emphasize proficiency in literacy and numeracy, skills for employment, decent work and entrepreneurship, formal technical and vocational education. Training, knowledge and skills to promote sustainable development in terms of lifestyle, human rights, gender equality, peace and non-violence, global citizenship, cultural diversity and lifelong learning, among others have also been focused. The relevant indicator of SDG4 was used as the basis for identifying objectives and setting the scope for this study.

The major objectives of the study have included, inter alia, to have an updated status of literacy level of population of 11 year plus age, skills development and lifelong learning initiatives. The study has tried to explore the existing learning opportunities and examine the relationships among literacy levels, educational qualifications, acquired skills and lifelong learning needs and opportunities and to find out their plausible socio-economic correlates.

The study is quantitative in nature and a nationally representative sample survey was used for the purpose. Different instruments were used for collecting data that included household survey questionnaire, literacy assessment tools, skills survey questionnaire, and a questionnaire for the survey on lifelong learning opportunities. A total of 15,265 individuals from 3,510 households in 270 neighbourhoods were covered under the household survey using a four-stage sampling procedure of which 11,668 respondents were the target population i.e. aged 11 years and above.

The key messages based on the findings of the Education Watch 2016 has found progress in literacy levels with a slow pace, school education as the principal source for literacy attainment, formal vocational education still not popular and there are misconceptions about it. Access to ICT including print and electronic media and reading materials is encouraging but different types of inequality still exist across the selected areas.

Major recommendations and policy implications based on the research findings included improvement of quality of school education, revisiting national definition of literacy needs in line with the expectations of SDG 4, strengthening TVET at the secondary level and aligning it with market demand, ensure better use of ICT particularly cell phones, television and newspapers particularly for young people and creating lifelong learning opportunities, taking measures to reduce all types of inequalities.

We would like to express our sincere thanks to Kazi Fazlur Rahman, Chairperson of the Education Watch and Kazi Rafiqul Alam, Chairperson of CAMPE for their continued guidance in carrying out this study. The *Education Watch* is privileged to have the unflinching support of CAMPE.

Samir Ranjan Nath of the Research and Evaluation Division of BRAC and the principal investigator of *Education Watch* Study 2016 took the lead in conducting the study and preparing the report. His team members included Prof. Kazi Saleh Ahmed and Dr. AMR Chowdhury. We are grateful to all of them. The panel of reviewers comprising Dr. Manzoor Ahmed and Prof. Dr. Kazi Saleh Ahmed deserve our special thanks for their valuable comments and suggestions on the draft. Dr. Manzoor Ahmed has done a commendable job in editing the report. We are indebted to him.

Our sincere gratitude to the *Education Watch* community, who participated in various sharing sessions on the preliminary findings and the draft report and provided valuable suggestions on the design, approach, analyses and findings of the study. Their contribution in preparing the key messages and policy recommendations of this report is highly appreciated.

Our appreciation will remain incomplete if we do not acknowledge the contribution and wholehearted cooperation of the Research and Evaluation Division (RED) of BRAC under the leadership of Prof. Dr. Abdul Bayes. Tanjeeba Chowdhury, Anwar Hossain, Rasel Babu, Utpal Mallick, Durdana Nahid, Iftikher-ul-Karim, and Rifat Afroze, of the Research and Evaluation Division of BRAC helped the research team in many ways including training, coordination and supervision of field surveys conducted by the research assistants.

CAMPE staff has played a vital role in producing the *Education Watch* report and facilitating their dissemination. K M Enamul Hoque, Ghiasuddin Ahmed, Mirza Quamrun Naher, Abu Reza, and Joya Rani Sarker of CAMPE played important roles at various stages of the study. All of them deserve our sincere appreciation.

We would like to extend our thanks to the respondents of the survey, particularly the household heads and individuals for participating in the test.

We are pleased to acknowledge the support and guidance received from experts and officials of different government agencies, particularly Ministry of Primary and Mass Education (MoPME), Bangladesh Bureau of Education Information and Statistics (BANBEIS), Bangladesh Bureau of Statistics (BBS), Bureau of Non-Formal (BNFE) Education among others.

This *Education Watch* Report has been possible due to the generous support received from the Delegation of the European Union in Bangladesh. We acknowledge their kind cooperation and express our deep appreciation.

Finally, we would like to request the readers, users and well-wishers of *Education Watch* to send us their suggestions, if any, regarding selection of topics for research, improvement of quality of research, presentation style or any other issue related to the study. Our efforts will be worthwhile if this report could serve as useful input in the key decision making process for improving literacy and life-skills in Bangladesh.

Let us all work for ensuring a better future, a beautiful Bangladesh.

Dhaka
06 December 2016

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Acronyms

BBS	Bangladesh Bureau of Statistics
BRAC	Formerly Bangladesh Rural Advancement Committee (an NGO)
CAMPE	Campaign for Popular Education
DAM	Dhaka Ahsania Mission
EFA	Education for All
EU	European Union
HIES	Household Income and Expenditure Survey
HSC	Higher Secondary Certificate
ICT	Information and Communications Technologies
ILO	International Labour Organization
LFS	Labour Force Survey
LIMIC	Low and Middle Income Country
MDG	Millennium Development Goals
NGO	Non-government Organization
NVQF	National Vocational Qualifications Framework
OECD	Organization for Economic Cooperation and Development
PECE	Primary Education Completion Examination
RED	Research and Evaluation Division (of BRAC)
SDG	Sustainable Development Goals
SSC	Secondary School Certificate
TLM	Total Literacy Movement
TVET	Technical and Vocational Education and Training
WEF	World Education Forum

B

Overview

A. Introduction

In September 2015, the United Nations General Assembly set unanimously the global Sustainable Development Goals (SDGs) for 2016-2030. Seventeen major goals have been adopted; 169 associated targets and 230 indicators have been formulated to guide and monitor progress. The fourth of the SDGs is on education that includes 10 targets. The targets included in the education SDG are larger in number and more multidimensional compared to those in the Millennium Development Goals (MDGs) for 2000-2015. An ambitious goal is envisioned for SDG 4 by 2030. The SDG 4 agenda announced in the World Education Forum 2015 at Incheon, Korea as the Education 2030 agenda for the next 15 years have been incorporated into SDG 2030. SDG 4 reads:

> *Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all*.

The 10 SDG4 targets cover pre-primary to tertiary education, technical and vocational education, skills development of youth and adults, literacy and numeracy of the population, inclusiveness and equity in education, quality in education and of teachers, as well as, provisions, scope and character of education services that address the targets. Knowledge, skills, attitude and behaviour that contribute to sustainable development are given prominence. In contrast to EFA 2015 and MDGs, attention is given to a broader range of education agenda including tertiary education and the opportunities for lifelong learning for all in the learning society. Overall, acquiring knowledge and skills needed to promote sustainable development by all sections of population is the main thrust of SDG4.

This 15th report of *Education Watch* deals with three of the above SDG 4 issues: *literacy*, *skills development*, and *lifelong learning opportunities*. The first two issues are not new to *Education Watch* – both were covered in previous *Education Watch* studies (in 2002 and 2011-12). The theme of *lifelong learning* is addressed specifically for the first time in the current *Education Watch* study. How these issues relate to SDG4 can be seen in Box. The year 2016 being the first in the 15-year time horizon for Education 2030, this study can form the baseline for measuring future progress.

All of the relevant targets are not attempted to be covered exhaustively in this study. Its focus is on literacy, work-related skills, and lifelong learning opportunities through access to knowledge and information beyond the national education system.

B. Study objectives

With the three major themes in mind the following are the objectives of *Education Watch* 2016:

1. To estimate the proportions of the population that are at various levels of literacy attainment and the variations in terms of gender, geographic locations, and socio-economic status.
2. To examine the participation of people in skills development apart from general education, use of those skills in everyday life, and the relationship between educational qualifications of people and their skills acquisition.
3. To investigate the existing learning opportunities of the population outside the national education system, and how these contribute to creating lifelong learning opportunities for people.
4. To explore the relationships among literacy levels, educational qualifications, acquired skills and life-long learning needs and opportunities and determine their plausible socioeconomic correlates.

C. Research design

A nationally representative sample survey with provision for administrative division, residence (urban/rural), and gender-based estimates was the approach adopted for conducting this study. Four separate instruments were used for collecting necessary information. These are:

- A household survey questionnaire,
- A skills survey questionnaire,
- A survey of ICT devices seen as the means of lifelong learning, and
- A literacy assessment test

All persons aged 11 years and above formed the study population. The whole country was divided into nine mutually exclusive strata. Seven of those were the rural areas of seven administrative divisions. Two represented the urban areas. Thus, the strata were: Rural Barisal Division, Rural Chittagong Division, Rural Dhaka Division, Rural Khulna Division, Rural Rajshahi Division, Rural Rangpur Division, Rural Sylhet Division, City Corporations, and the municipalities (*paurasavas*). A multistage sampling strategy was adopted for each stratum. Note that Bangladesh had 487 *upazilas* in seven rural divisions, 79 *thanas* under 11 City Corporations, and 300 municipalities at the time of fieldwork of this study.

A total of 3,510 households from 270 neighbourhoods (village in rural areas and *mahallah* in urban areas) were covered through the household survey. A total of 15,265 individuals of all ages lived in these households. Of these individuals, 11,668 were aged 11 years and above – the targeted respondents of this study. Of them, 11,280 could be brought under the survey (the weighted response rate being 96.5%). Of the respondents 53.6% were female.

Literacy was measured through an assessment test developed originally for *Education Watch* 2002 study. It was a one-to-one test combining both oral and written items. The test instrument covered four domains, viz., reading, writing, numeracy, and application of the 3R's. The total number of items (questions) was 24, equally distributed by domains. The maximum possible score was 100; 25 for each domain. Instead of dividing the population as literate or not-literate, they were placed in one of the following four levels of literacy, based on their test score. In other words, this was a move away from dichotomy to multi-level scaling in literacy assessment. The levels were:

- *Non-literate* (scoring less than 25% of the maximum)
- *Semi-literate* (scoring between 25%-49%)
- *Literate at initial level* (scoring between 50%-74%), and
- *Literate at advanced level* (scoring 75% and above).

The other required information for the study was collected through interviewing household heads and the respective respondents. The literacy test and interviews were carried out at homes of the respondents, except for a small number who had to be interviewed at their workplaces. One hundred trained research assistants (half of them female) collected the data from 12 May to 18 July, 2016.

D. Literacy status of the population

- Of the total respondents of age 11 years and above, 26% were found to be literate at *advanced* level, 25.3% at *initial* level, 9.8% *semi-literate*, and 39% *non-literate*. Based on the premise that the first two groups satisfy the basic minimum standards for literacy, it shows that 51.3% of the respondents were

literate. It was 54% for males and 49% for females (p<0.001); 49.4% among rural respondents and 59.3% among urban respondents (p<0.001). Gender difference was equally high in both the areas. The overall literacy rate for the 15+ population, the usual international benchmark for adult literacy rate, the 2016 figure is 47.2%.

- The literacy rate significantly varied by stratum as well as by neighbourhoods. Stratum-wise, the rate was highest in the city corporations and lowest in rural Chittagong division with a difference of 17.9 percentage points. Gender difference disfavouring females was observed in rural Chittagong, Sylhet and Rangpur divisions and the municipalities. Neighbourhood-wise, the rate varied from 9.8% to 93.8% with a large gap of 80 percentage points. Out of 270 neighbourhoods, 8.1% had a literacy rate below 30%, 10% had 30-<40%, 23.4% had 40-<50%, 30.4% had 50-<60%, 15.9% had 60-<70%, 8.5% had 70-<80%, and 3.7% had 80% or more.
- Among the four domains of literacy, the best outcome was recorded in reading skills (59.1%), followed by writing skills (46%), numeracy skills (44%) and application of the 3R's (37.2%). Urban respondents significantly surpassed their rural counterparts in each of the domains, but males did better than females in two, viz., numeracy and application of the 3R's. No gender difference was found in the other two domains.
- Educational qualifications represented by years of schooling completed by respondents was the most important predictor of their literacy achievement followed by literacy status of household heads. This signifies the importance of school education in literacy attainment. However, a poor performance was observed among those having 3-5 years of schooling. At least 6-7 years of schooling was required to have at least an *initial* level of literacy skills for 80% of the respondents and 10 or more years of schooling was needed for *advanced* level of literacy skills for three-quarters of respondents.
- Literacy rate significantly increased with increase of parental education, food security status of household and household wealth. Two-fifths of the household heads were literate. Three-quarters of the youth (15-24 years) and 47.2% of adults (15 years and above) were literate. It was only 20.7% among the elders (60+ years). A fifth of the households had not a single literate person, three-fifths had at least one but not all, and another fifth had all members literate. Therefore, 80.5% of the households had at least one literate member.
- Literacy rate for the 11+ population increased from 41.4% in 2002 to 51.3% in 2016 – on average, 0.7% per years. It was due to decrease in percentage of *non-literate* population and increase in literate population with *initial* and *advanced* levels. In 2002, 49.3% of the respondents were *non-literate*, 9.3% *semi-literate*, 21% literate at *initial* level, and 20.4% literate at *advanced* level. These rates became 38.9, 9.8, 25.3 and 26%, respectively in 2016. Although an equal growth rate was observed in reading, writing and numeracy skills, but it was much slower in application of the 3R's. For the 15+ population, the figure for 2002 was 38.8% which increased to 47.3% in 2016.
- Increase in literacy rate was observed among males and females and among the rural respondents; however, it decreased among urban respondents. Stratum-wise, increase in literacy rate was evident in each of the rural strata and decrease in both the urban strata. Sub-group-wise analysis also showed improvement in most cases. Proportion of literate households increased from 61.9% in 2002 to 80.5% in 2016.
- Population in each level of literacy increased due to increase in overall population in the country. In 2002, there were 45.8 million non-literate, 8.6 million semi-literate, 19.5 million literate at *initial* level and 18.9 million literate at *advanced* level population in the country. By 2016, these figures increased

to 50.9, 12.8, 33 and 33.9 million, respectively. During 14 years, 28.5 million literates added in the population – over two million per year.

- Literacy rate significantly decreased with increase of age of respondents. The 'EFA generation' (aged 11-29 years who benefited most from the EFA movement) had the highest literacy rate (72.7%) compared to any other age-cohort. This increased from 53.9% in 2002. The rate of increase was almost double in this age-group than that in overall population. Major improvement occurred among rural females.
- How long will Bangladesh need to achieve universal literacy, if the present trend persists? With the current rate of progress, Bangladesh would require 43.6 years to have all its citizens (11 years and above) literate and 14.9 years to get all aged 11-29 years to be literate. In other words, at the present rate of progress, Bangladesh will have universal literacy at *initial* level by 2060, and for the 11-29 years old by 2031. But to reach *advanced* literacy level Bangladesh would have to wait until 2052 for the 11-29 years old population and until 2094, for all its citizens!

E. Technical and vocational skills

- The present survey looked at the status of participation of young people and adults in work-related skills development in three broad categories – formal TVET of longer duration of one to four years, shorter training of less than a year in a formal mode, and skills acquisition through informal and non-formal means. In respect of the total numbers of participants and the variety of skills and trades, the last category clearly is dominant. Yet, the quality, relevance, effectiveness and efficiency of the last category as well as the other two remain questionable, as the analysis shows.
- Of the respondents having at least nine years of school education, 6.5% received Technical and Vocational Education (TVET) which includes Secondary (Vocational), Higher Secondary (Vocational), Higher Secondary (Business Management), and diploma in Engineering, Agriculture, Commerce, Textiles, Fisheries, Health Technology, Nursing, Jute technology, and Forestry etc. About 9% of males and 4.2% of females had TVET ($p<0.01$), but the proportion was mostly equal for urban and rural respondents.
- Those who did not go through TVET, nearly a third of them reported that TVET did not come to their mind while taking a decision about further education beyond grade VIII. Over a quarter of the respondents (26.2%) had no idea about such education provision, 15.7% had no scope to go for such a study because it was not offered in their secondary schools, and 13.8% reported not getting any advice or encouragement from their family members to go for TVET.
- About 9% of the respondents aged 11 years and above had skills training of short duration (less than one year). Eleven percent of males and 7.4% of females ($p<0.001$), and 8.3% of rural and 12.3% of urban respondents ($p<0.001$) had this training. Males were ahead of females in both the areas. Major courses included tailoring, computer operating, agriculture and food processing.
- Of the 11 years and above respondents, 42% received skills training through informal/non-formal ways. Major training areas include agriculture and food, rural handicrafts, and tailoring. It was 48.4% among males and 36.6% among females ($p<0.001$), and 41.5% in rural and 44.5% in urban areas ($p<0.001$). Gender difference persisted in both the areas.
- More than 52% of these respondents received skills training with an expectation of additional income. However, another 20% did not cite any specific reason for this. About 22% of the training recipients reported to have 'fully' used their skills in occupation, 35.8% used 'partially' and 42.3% had 'no use'.

Use of skills in occupation increased with increase of educational qualifications of the respondents. A third of those who were unable to use their skills were employed in jobs that could not use the skills, 23.2% did not try enough to find the right job, and 15% cited health problems for not applying in their jobs the skills learned through training.

- A half of those who did not receive any skills training expressed the need for such training. No gender or urban-rural difference was observed among them. Tailoring, computer operating, cow/goat rearing, driving vehicles and electronics and electrical skills were put on the list of demand for training. Those who expressed these demands were more likely to be young, female, non-Muslims with some years of schooling and from less wealthy households.
- In order to consider policy options and priorities regarding skills development, the snapshots presented of the status and the indication of challenges are useful. However, these need to be placed within the context of related general education and learning conditions which are precursors and complement to work-related skills development, as well as the broader employment market and the economic environment at home and abroad.

F. Lifelong learning: opportunities, practice and challenges

- Access to various types of information and communications technology (ICT) devices and reading materials and media are analysed considering these as important means and sources for lifelong learning. The findings reveal that of four information technology devices — cell phone, television, radio and computer – cell phone was the most popular in terms of access, closely followed by television. Access to radio and computers was far behind the other two.
- Of the respondents aged 11 years and above, 78.5% had access to cell phones, 62.1% had access to television, 6.5% had access to radio, and 4.1% had access to computers. Males were ahead of females in access to each with statistically significant margin ($p<0.001$). Urban respondents surpassed their rural respondents in each ($p<0.001$). Gender difference persisted in both the areas.
- Major use of cell phones includes chatting (100%), listening to music or watching movies (55.4%), listening to *Waaz* (Islamic preaching) (33.8%), doing photography or videography (32.1%), and games (30.6%). On the other hand, major use of computers include listening to music and watching movies (68.3%), job-related writing/keeping records (51.6%), Internet browsing (46.2%), games (29.7%), and school-related study (18.6%).
- On average 9.6% of the respondents had access to the Internet; 15.1% among males and 4.8% among females ($p<0.001$), and 17.1% among urban and 7.8% among rural respondents ($p<0.001$). Males were ahead of females in both the areas. Use of social media through the Internet came out as its top use which was followed by its use for entertainment, getting general and sports news, educational purposes, job searching, email, and getting share market information.
- Of the respondents, 14.3% had access to newspapers, 16.4% had access to literary books and 13.9% had access to religious books. Males were ahead of females in access to newspapers and literary books, but an opposite scenario was observed in access to religious books, i.e., larger proportions of females used religious books compared to males. Urban respondents were ahead of their rural counterparts in each.
- Stratum-wise statistically significant variation was observed in access to each of the ICT devices and reading materials. City corporation dwellers had most access to ICTs and reading materials, but there were some poor performing areas too. Access to computers in Chittagong division, television in Barisal

division, and computer, the Internet, television and newspapers in Rangpur division are some of the examples of low access.

- Access to the ICT devices and reading materials significantly decreased with increase of age of the respondents. The EFA generation (11-29 years old) had the highest access to each of the ICTs including the Internet as well as to each type of reading materials.
- Along with age, gender, area of residence, geographical stratum and cluster, variation in access to ICT devices and reading materials was observed in terms of educational qualifications of respondents, parental education, household heads gender and literacy level, ethnicity, and household wealth.
- Nearly 62% of the respondents felt the need for new information for doing better in their professional life and 96% felt such need for living a better life at both personal and social levels. Males were ahead of females in both. Urban respondents surpassed their rural counterparts in expressing the need. Stratum-wise significant variation also persisted in both.
- Information needed for occupational development includes educational information, agriculture and food processing, various technologies, and health related topics. At the same time, information for personal/social wellbeing includes health related topics, educational topics, various technologies, law and human rights, and cooking. The other issues included trading, handicrafts, tailoring, and religious affairs. Gender and residence-wise variation were evident in some of those.
- Relatives and neighbours were the principal sources for both types of information (occupational and personal/social). Over 79% of the respondents used these sources for information related to personal/social wellbeing and 63% relied on these sources for occupational development. The other important sources of information related to occupational development were colleagues, supervisors or *Ustad*s (mentors) in shops/workplaces, and school/college teachers, television, and doctors, hospitals or health workers.
- In general, as might be expected, people with higher levels of education, those living in urban areas, those of younger age, and those from better off households have greater access to information and knowledge technologies and take greater advantage of these, except for a higher level of accessing religious preaching by women and rural people. ICT so far, therefore, reinforces social and economic disparities, rather than mitigating or reversing the disparities.
- The data and the analysis have not attempted to probe into the challenges regarding how lifelong learning as a concept can be translated into practice, transforming the conventional patterns and limitations of educational services and access to knowledge and information. Integrating different modes of learning – formal, non-formal and informal – with a focus on skills and capability enhancement of people to meet the 21st century needs in personal, social and national development is clearly the major lifelong learning challenge.

G. Key messages

Following are the key messages emanating from the findings of the *Education Watch* 2016 study.

1. *Progress in literacy has been made, but at a slow pace*. Good news is that Bangladesh has made progress in various levels of literacy. However, the rate of progress is rather slow – only 0.7% per year. The progress rate was relatively better in reading and writing skills but very poor in numeracy and application of the 3R's. Slower progress in latter two components slowed down the overall progress

in literacy. At the current rate of progress, Bangladesh would take 44 more years to have an *initial* level of literacy skills for all its citizens and 78 years to attain the *advanced* level.

2. *The EFA movement positively impacted on literacy attainment*. The highest progress in literacy was seen among those who have been at school age through the EFA period during the past 25 years (1990-2015). This implies a positive impact of the surge of educational efforts prompted by the EFA movement. This cohort of population would need 15 more years to have all of them literate at *initial* level and 36 years at *advanced* level – by 2031 and 2052, respectively.

3. *School education is the principal source for literacy attainment but the quality deficits in schooling also has been a drag on progress in literacy.* Strong relationship of literacy status and years of schooling completed indicates contribution of school education. From 2002 to 2016, literacy skills improved somewhat at different grade levels, but it still remains unsatisfactory for primary grades completers. More than a third of the fifth grade completers were found to be non-literate in 2002. The situation has not improved much since then. With current standards, at least 6-7 years of schooling is required to have an *initial* level of literacy skills for 80% of the population and 10 years of schooling to have *advanced* level of literacy skills for three-fourths of the population.

4. *Formal vocational education is not popular and there are misconceptions about it*. *Skills development for informal economy demands greater attention.* Participation in TVET and short training courses is in general very low. However, relatively higher participation rate among the youth indicates an increasing trend. People do not have adequate information or have misconceptions about such education. A good proportion of the population has undergone informal/non-formal training on various skills, but a smaller proportion of whom found it useful in their occupations. A coordinated literacy and skills development approach, especially for the low skills informal economy jobs for those not eligible for formal TVET, remains a seriously neglected area.

5. *The state of access to and use of various ICTs and reading materials signals a state of hope. Demand for developmental information persists*. Over 78% of population use cell phones and 62% watch programmes on television. Access to reading materials including newspapers is also reasonably high. The Internet is mostly used for chatting and entertainment, but text messaging is less common than might be expected, presumably a reflection of the literacy level of the population. There is a demand for information on professional development as well as for personal and social wellbeing. Some of these demands can be fulfilled through current provisions and some cannot be. There are clearly untapped opportunities to use the technology devices for educational and occupational purposes.

6. *Varieties of inequality exist across the components addressed in this study*. Inequality in literacy, skills development and lifelong learning opportunities exists in terms of gender, area of residence, administrative division and sub-groups of population in various ways. Variation from one neighbourhood to another is very high. Furthermore, household wealth and parental education played important role in literacy achievement and access to skills training and lifelong learning opportunities. Although it is not unlikely that the well-off households would take greater advantage of facilities, the system so far reinforced disparities, rather than mitigate or reversing disparities.

H. Policy recommendations

Keeping in view the SDG 4 agenda and education priorities articulated through national discourse in Bangladesh, the analyses of the findings and the main conclusions of *Education Watch* 2016 study lead to the following policy recommendations.

1. *The national definition of literacy needs to be revisited with the aim of making literacy skills the foundation of lifelong learning as envisioned in SDG 4. A national assessment-based literacy measurement needs to be adopted.* The archaic measurement method and the dichotomous definition of literacy are no longer useful. A test-based literacy assessment that establishes different skill levels should guide measurement of literacy skills and design of literacy programmes. Likely to Labour Force Surveys (LFS) and Household Income and Expenditure Surveys (HIES), a separate test-based assessment of literacy should be a regular activity of the Bangladesh Bureau of Statistics (BBS).

2. *Quality of school education must be improved to ensure that early primary grades produce students with an initial level of literacy and by the end of primary education (grade 5), they achieve a self-sustaining level of literacy and numeracy.* The quality improvement initiative has to address the need for greater emphasis on literacy and numeracy competencies in primary curriculum, learning materials, teaching methods, teacher training, organising the learning routine, and assessment of teacher and student performance. Literacy and numeracy have to be regarded as the tools of learning and the foundational skills. This foundation has to be firmly laid at the primary school stage for all children.

3. *The low TVET participation at the secondary level must be raised and varieties of short courses through institutions and informal/non-formal ways should be adequately nurtured in order to connect them with market*. The former can be done by adding a vocational stream within existing secondary schools and madrasas and expanding separate vocational schools with quality of training, motivated students, and strong link with employment market. This should be done in line with the National Skills Development Policy 2011. Attempts should be taken to make this stream of education understood by the students, teachers and parents through providing them adequate information to mitigate misconception about it. A major emphasis should be on relevant and flexible short courses and formal and informal apprenticeship. Again, ways outlined in the above mentioned policy should be followed to organize and assure quality of short and informal/non-formal courses engaging private bodies and NGOs. A broad definition of skills development as a part of human capability enhancement embracing the spectrum of foundation skills, transferrable skills and job-specific skills need to receive coordinated attention. These have to be offered through formal and non-formal modes of learning in basic and general education institutions and occupation related training institutions and programmes.

4. *The potential for expanding the scope of lifelong learning through information and communication technologies including cell phones, television, the print-media, and increasingly the Internet, must be fully exploited.* The seventh target of SDG 4, an amalgam of educational ambitions, has not been addressed so far very effectively in our education system, and presents formidable tasks for all seeking to promote lifelong learning. This challenge still remains to be articulated and the strategies for action and indicators for guiding and assessing action need to be worked out. In a sense, target 7 is about what education is for, whereas the other targets are more about how education is to be delivered effectively and efficiently. Both types of questions have to be answered from country perspective. A network of permanent community learning centres that most developed OECD countries and many developing Asian countries have established as the institutional vehicle for lifelong learning offers a

model that should be seriously considered for Bangladesh. Youth, the most potential group for development, should be seriously engaged with the process with a vision of developed Bangladesh.

5. *Pervasive inequalities in literacy, skills development and access to ICT must be removed; education and learning opportunities should not reinforce prevailing disparities.* Sustainable development cannot be achieved while various forms of inequality persist. Previous *Education Watch* studies have documented inequalities of various forms in school education system. Now a digital divide threatens to add a new dimension to inequality in knowledge, information and learning, unless remedial and preventive measures are put in place. As general education comes before literacy, skills development and lifelong learning, it is important to reduce inequality also in general education system as the former influences the latter.

Finally, the three components of SDG 4 dealt with in this *Education Watch* report are critical and interlinked. There is a danger that each of these components are conceived and designed as discrete endeavours, thus the advantages of complementarity and drawing strength from each other lost. The concerned authorities in Bangladesh should take the key messages seriously and thereof the recommendations. A holistic and integrated view must be taken of the SDG 4 targets; indeed, the connection between these and targets for other SDG goals, where appropriate, must be considered.

Chapter One

Introduction and Background

This chapter sets the background for this study. Referring to the Sustainable Development Goals (SDG) that the world has set for itself, this chapter presents the rationale for investigating the issues identified for the study. A review of the literature, national and global, helps us to contextualise the issues. Finally, an outline of the report is presented.

A. Introduction

The world has recently moved from the Millennium Development Goals (MDGs) era to a Sustainable Development Goals (SDGs) era. SDGs consist of 17 goals, 169 associated targets and about 230 indicators. These are the developmental goals set by the United Nations General Assembly for improving lives of the people globally by 2030. Two of the eight MDGs were on education; but of the 17 SDGs, the single education goal is SDG 4. The targets included in the education SDG are larger in numbers and more multidimensional compared to those in MDGs. A very high expectation is set for SDG 4 by 2030. The SDG 4 agenda announced in the World Education Forum 2015 at Incheon, Korea as the Education 2030 agenda for the next 15 years have been incorporated into SDG 2030 adopted at the United Nations in September, 2015.

SDG 4 reads:

> *Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all*.

This goal contains 10 specific targets (Annex 1.1). These targets cover primary to tertiary education, technical and vocational education, skills development of youth and adults, literacy and numeracy of the population, inclusiveness and equity in education, quality of education and of teachers, as well as provisions, scope and character of education services that address the targets. Knowledge, skills, attitude and behaviour that contribute to sustainable development are given prominence. In contrast to EFA 2015 and MDGs, attention is given to a broader range of education agenda including tertiary education and the opportunities for lifelong learning for all in learning societies Overall, acquiring of knowledge and skills needed to promote sustainable development for all sections of the population is the main thrust of SDG 4.

Education Watch is a civil society initiative to monitor educational progress in Bangladesh. So far 14 reports have been published on various issues of education since its inception in 1998. The issues covered were mostly related to school education, ranging from pre-primary to primary to secondary education. This is because the MDGs and the EFA movement emphasized these. Besides, literacy levels of population and skills development of youth were also covered in two reports. The latest *Education Watch* study documented immense improvement in school-related indicators including access, enrolment and quality, and an enhancement in literacy status of the population (Nath *et al.* 2015). Importantly, school education has expanded gradually with an increased capacity to provide education with somewhat better quality. Bangladesh made significant progress in achieving education related MDGs (Nath *et al.* 2015, Planning Commission 2015). Studies also highlighted the challenges that Bangladesh has been facing in educational development at various levels. Achieving an acceptable level of quality of education still remains a critical challenge that underscores the unfinished business from EFA 2015. Serious and committed effort will be needed to achieve SDG 4.

Based on discussion by the *Education Watch* group on the targets of SDG 4, Bangladesh's progress in education and future needs in relation to human resource development, it was decided to explore three related issues for *Education Watch* in 2016. The issues are:

- Literacy,
- Skills acquisition, and
- Lifelong learning opportunities.

How these issues relate to SDG 4 can be seen in Box 1.1. *Education Watch* covered the first two issues in the reports produced in 2002 and 2011-12, but the third issue was not addressed directly. The year 2016 being the first in the 15-year time horizon for Education 2030, this study can form a baseline for measuring future progress.

It can be seen that literacy and work and occupation-related skills are specifically included in the targets formulated for SDG 4. Lifelong learning does not figure directly in the targets, but are implicit in literacy and skills targets as well as in target 4.7 about knowledge and skills for sustainable development and global citizenship embracing change in lifestyle of people and people's behaviour as individuals and members of society. Knowledge, learning and enhancement of people's capabilities related to the range of objectives indicated under target 4.7 clearly have to be a lifelong effort rather than being time and space-bound as an age-specific learning endeavour.

Box 1.1

SDG 4 targets related to Education Watch 2016 Study

To ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, relevant key targets are:

4.3. By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university.

4.4. By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.

4.6. By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy.

4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development.

Source: www.undp.org

The Education 2030 Framework for Action adopted by UNESCO provides strategies for planning and implementing the Education 2030/SDG 4 targets. The Framework also includes the provisional indicators related to the targets as the guide for planning and assessing progress on targets. It is appropriate to keep in mind the indicators for the relevant targets, viz., those for vocational/technical skills, literacy and those related to education for sustainable development and global citizenship (Targets 4.3. 4.4. 4.6 and 4.7) as shown in Annex 1.2.

B. Issues explored in this study

Assessment of literacy

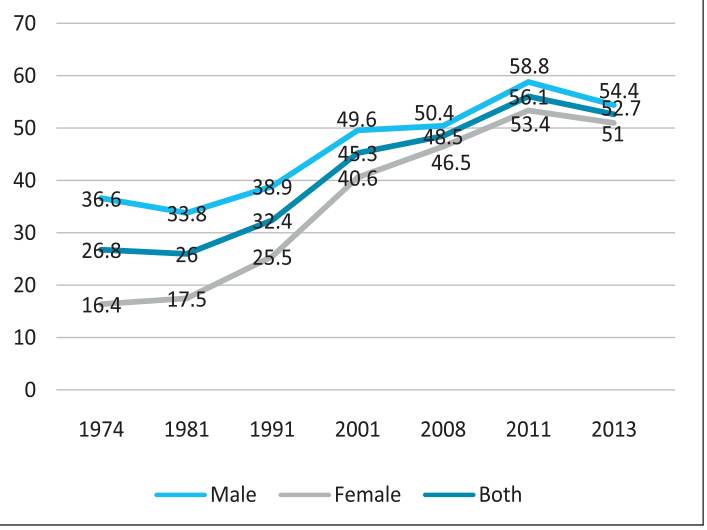
The latest Global Education Monitoring Report says, 'Literacy is a basic cognitive skill that is fundamental for access to decent work' (UNESCO 2016). People, in general, acquire literacy skills in two different ways – from the existing education provisions of the country and through targeted literacy programmes. History shows, literacy movements brought success in some of the countries, but in most countries it did not work as expected.

Although there have been many attempts, nationally and sub-nationally, to improve literacy status of population in Bangladesh, the education system played the pivotal role in improving literacy in the country

(Nath 2016, Ahmed, Nath and Ahmed 2003). The national definition of literacy in Bangladesh is very simple: the *ability of writing a letter to communicate a message*. This definition has been used in all the five national censuses held in Bangladesh since Independence and in numerous sample surveys conducted by the Bangladesh Bureau of Statistics (BBS) and others. The method of collecting information is to ask the household heads or their spouses or any adult member in the household about the ability of individual members of the households. This is described as *reported* literacy. This definition and the way of collecting information were followed in most of the household and literacy surveys in Bangladesh including many under *Education Watch* (Chowdhury *et al.* 2002, Nath and Chowdhury 2009, Nath *et al.* 2015). Figure 1.1 shows that such literacy rate for population 7 years and above has doubled in Bangladesh over a period of 39 years – from 26.8% in 1974 to 52.7% in 2013. Gender gap in literacy rate in favour of males has also decreased during this period – 20.2 percentage points in 1974 to 3.4 percentage points in 2013. Reduction of gender-gap in *reported* literacy is an indication of faster progress by females than males in this journey. The adult literacy rate (15 years+) was found somewhat higher than this.

Figure 1.1

Reported literacy rate (7+ years) by year and gender



Source: National Censuses 1974, 1981, 1991, 2001, 2011 and Education Watch Household Survey 2008, 2013 (cited in Nath 2016)

The above approach of literacy measurement has two obvious limitations. Firstly, the simple definition is very limited and narrow that overlooks many important aspects of literacy. For instance, a meaningful definition of literacy including the one used in SDG 4 embraces numeracy skills, literacy skills in different contexts, and computer literacy. Secondly, the approach is confined to a dichotomous view of literacy - literate or non-literate. Since literacy skills are acquired progressively in a continuous process, a continuum of literacy should be built into the methodology of assessment and measurement of literacy.

It should be noted that the problem of the dichotomous definition has been long under discussion and UNESCO and others concerned about the value and significance of literacy have been advocating for a recognition of the continuum in designing literacy development and measuring literacy skills (UNESCO 1957 cited in Oxenham 1980, Freire 1972, 1973, Freire and Macedo 1987). The industrialized countries have taken the idea seriously and *test-based* literacy assessment at different levels of skills has long been practiced in OECD countries including USA (OECD 1997). Some of the low and middle income countries (LMICs) also have adopted such an approach. The ability to 'identify, understand, interpret, create, communicate and compute' is emphasised by UNESCO (2016) in line with the SDG 4 target which specifies numeracy as a skill to be acquired.

Recognising the need for measurement based on tested literacy and the continuum of skills, *Education Watch* developed a literacy measurement test for the first time in Bangladesh in 2002 and applied it in a

national sample survey of literacy (Ahmed, Nath and Ahmed 2003). Instead of dividing the population between literate and non-literate, the *Education Watch* study assessed four levels of literacy. It was a move away from dichotomy to a multi-level scale of literacy assessment. The levels are:

- Non-literate,
- Semi-literate,
- Literate at *initial* level, and
- Literate at *advanced* level.

The following definition of literacy has been used:

> *Possession of skills in reading, writing and numeracy related to familiar contents and contexts and the ability to use these skills in everyday life in order to function effectively in society*. Separate definitions for each of the levels were also developed.

Following the 2002 *Education Watch* study, two more literacy surveys were conducted later; the first one undertaken by Dhaka Ahsania Mission (DAM) and the second one by Bangladesh Bureau of Statistics (BBS) – both supported by UNESCO, Dhaka (DAM 2007, BBS 2008). The DAM study fully followed the test instrument and methodology of *Education Watch.* The BBS made a lot of changes in the items of the test instrument but retained the four levels of literacy in line with the *Education Watch* methodology. Results of the three *test-based* literacy study are provided in Table 1.1 which shows no difference in literacy rate between 2002 and 2005, but a big jump is seen from 2005 to 2008. This was somewhat in contrast with what was found in other basic education indicators. For instance, significant changes in the indicators for primary education were not recorded during this period (Nath and Chowdhury 2009, Nath *et al.* 2015). The jump from 2005 to 2008 in literacy results appear to be due to BBS incorporating relatively easier items (questions) in the test instrument. The results of BBS survey is therefore not comparable to those of the other two studies.

Table 1.1

Percentage distribution of respondents by levels of literacy in three test-based national literacy surveys

Levels of literacy	Year		
	2002	2005	2008
Non-literate	49.3	53.0	34.2
Semi-literate	9.3	5.5	16.1
Literate	***41.4***	***41.5***	***49.7***
Initial level	21.0	15.0	20.6
Advanced level	20.4	26.5	29.1

Source: Ahmed et al. (2003), DAM (2007), BBS (2008)

Skills development

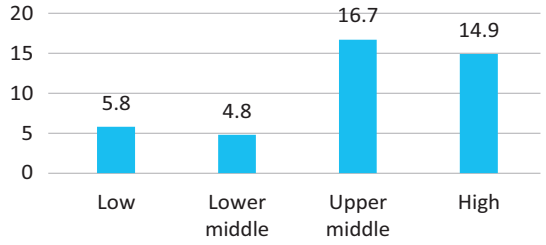
Countries with a higher level of education and skills have greater possibilities to effectively cope with the challenges of global economy and social development. The most reliable vehicle to take the poor out of poverty is to engage them in income generating activities or providing them with employment. Evidences across the world suggest that most of the working poor are engaged in informal sector employment, which does not usually offer adequate wages, good working conditions, and social protection. Those who are employers or entrepreneurs in formal or informal economy can rise above the poverty threshold and can provide employment to others (Chen 2006). According to International Labour Organization, one of the keys to a productive and competitive economy is a well-trained and adaptable workforce (ILO 1999).

Experience across countries has shown that vocational education and training for young people beyond basic general education is an important step for facilitating transition from school to work. Countries with strong vocational training programmes tend to be in a better position to avoid rising youth unemployment

(Eichhorst 2015). On average, 10.7% of the secondary level students in the world participated in technical and vocational education in 2014 - 17% in the developed countries and 9.3% in the developing countries (UNESCO 2016). Whereas the figure is about 20% in Eastern Asia, it is 11.7% in South Eastern Asia and only 2.1% in South Asia. South Asia had the lowest proportion of TVET students at secondary level. In this region, this proportion is 15% in Iran, 6% in Sri Lanka, and only 1% in India. Figure 1.2 shows the variation for income-based categories of countries.

Figure 1.2

Percentage of secondary studnets enrolled in TVET by income-based country category



Source: UNESCO (2016)

There are different approaches to organising and providing vocational and technical education for young people at the post-primary education stage. These include separate vocational institutions at the post-primary level, vocationalization of secondary education in the form of subjects and curricular contents within regular secondary schools, and vocational and occupational training placement in industries in collaboration with employers through time-release of secondary students. How students for technical and vocational education and training (TVET) are selected, what proportions of secondary level students should be in TVET, how the quality and responsiveness to employment market of the programmes are ensured, and how the programmes are financed and managed in a cost-effective way are issues which do not have definitive answers or effective models, especially in the context of different economic development and employment market situations (Ahmed *et al*. 2012, McGrath 2007, UNESCO 2005)

Bangladesh adopted a Skills Development Policy in 2011 to guide strategies in skills development so that the country can achieve its goal of attaining the middle income status. The vision laid down in the policy is to create a coordinated and well planned national strategy for enterprise development to empower all individuals to access decent employment and ensure Bangladesh's competitiveness in the global market. Skills development is offered by many different actors, including the public sector, private sector, not-for-profit actors, non-government organizations (NGOs), and civil society.

Skills development is defined in the policy statement as *the full range of formal and non-formal vocational, technical and skills based education and training for employment and or self-employment.* The components of skills development identified include the following.

a. Pre-employment and livelihood skills training, including TVET, apprenticeships and school based TVET;

b. Education and training for employed workers, including workplace training; and

c. Employment oriented and job-related short courses not currently affiliated with Bangladesh Technical Education Board (BTEB) servicing both domestic and international markets.

It is to be noted that the concept of skills development reflected in the skill development policy does not include the role of general education programmes delivered by primary and secondary schools or non-formal education delivered by NGOs and government agencies that do not directly develop employment oriented livelihood skills, education for professionals delivered by universities, and professional training for executives outside the scope of National Vocational Qualification Framework (NVQF). According to the policy, skills development system in Bangladesh is classified into four main segments. These are a) The

public segment delivered by different ministries, b) The private segment which are commercial training institutions, but may receive some form of government subsidy, c) NGOs, and d) Industry based institutions managed by industry and training delivered in the workplace.

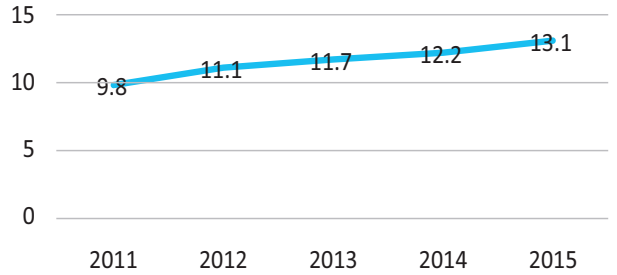
Each segment targets with a varying degree of emphasis different groups such as youth, women, low-skilled people, people with disabilities, migrants and internally displaced people, older workers, indigenous people, ethnic minority groups and the socially excluded. They may be workers in small and medium-sized enterprises, the informal economy, in the rural sector and in self-employment. A wide variety of formal and non-formal training programmes using different approaches to delivery and assessment is offered to them. The national education policy also provides policy guidance regarding skills development (GoB 2010). The education policy objectives put special emphasis on the expansion of quality education opportunities, especially primary and secondary education, as a preparation for occupational and technical skills development. The policy also aims to motivate students to inculcate dignity of labour; and to enable students to acquire skills in entrepreneurship and creating self-employment.

Formal Technical and Vocational Education and Training (TVET) is provided at three levels in Bangladesh. These are secondary, higher secondary, and post-secondary non-tertiary level. The numbers of students at each of these levels of education as a whole as well as in TVET have increased over time. The total number of TVET students was 5.1 lakhs in 2011 which increased to 6.7 lakhs in 2013, and 8.7 lakhs in 2015. Proportionately, 9.8% of the students of these three levels were TVET students in 2011, which increased to 11.7% in 2013 and 13.1% in 2015 (Figure 1.3). In 2015, 7% of the secondary students enrolled in TVET which was 13.3% in the case of higher secondary level and 85.3% in post-secondary non-tertiary level. Note that in 2005, less than 3% of the secondary students enrolled in TVET which doubled by a decade. Bangladesh's current figure is 3.7 percentage points lower than the global figure, half of the Iranian figure and a third of the Eastern Asia figure.

At present, 2,656 institutions provide TVET at secondary level and 1,766 institutions at higher secondary level (BANBEIS 2016). Of the secondary level TVET providing institutions, only 6.4% are independent, while 93.6% are attached to secondary schools. On the other hand, 38.2% of the higher secondary level TVET providing institutions are independent and 61.8% attached to higher secondary schools. Only 11 secondary and 25 higher secondary level institutions are publicly managed. The number of post-secondary non-tertiary institution is 1,368; of which 15.8% are public.

Figure 1.3

Percentage of TVET students collectively at secondary, higher secondary and post-secondary non-tertiary levels



Source: BANBEIS (2012, 2013, 2014, 2015, 2016)

According to the latest Labour Force Survey (LFS 2015), 57.9% of country's adult population are economically active (BBS 2016). The majority of them (84.7%) were employed in the informal sector. Females lagged behind males in participation in economic activities (33.9% vs. 82.5%), but they were ahead of males in participating in the informal sector (92.6% versus 81.5%). The broad picture of participation in skills development shows the need for a major expansion of these opportunities. As noted above, around 13% of the secondary and post-secondary students enrolled in TVET. Of the vast majority who did not

participate in formal TVET, only 4.3% of country's adults received any vocational training outside the school system. Presumably, this figure does not include skills acquired through informal and traditional apprenticeship. Females lag behind males and rural population lag behind urban population in receiving such training (BBS 2016).

Lifelong learning

The concept of lifelong learning came into focus in the 1970s and was discussed at different global forums. A passionate plea was made in the UNESCO report titled *Learning to be* to all nations of the world to reorganize their education structures along the lines of lifelong learning. It stated, 'we propose lifelong education as the master concept for educational policies in the years to come for both developed and developing countries' (Faure 1972). A learning society is one in which all agencies in a society become provider of education and all citizens take active part in learning (Faure 1972). Later in 1996, the Delors report emphasized on renewal of knowledge, skills and learning abilities of individuals. The report promoted acquisition of sound general education and learning throughout life. They said, 'a key to the twenty-first century, learning throughout life will be essential, for adapting to the evolving requirements of the labour market and for better mastery of the changing timeframes and rhythms of individual existence' (Delors *et al.* 1996).

Lifelong learning is an idea which has growing influence on education policies in the globalised world. In the Organization for Economic Cooperation and Development (OECD) and the European Union (EU), the promotion of lifelong learning has been a strategy to speed up economic growth and to become competitive in a globalised world economy. For UNESCO and the World Bank, lifelong learning has been a novel education model to strengthen educational policies and programmes in developing countries. The OECD concept of lifelong learning reflects a broad and ambitious vision: *learning activity that is undertaken throughout life and improves knowledge, skills and competencies within personal, civic, social and/or employment-related perspectives.* Thus the whole spectrum of learning, formal, non-formal and informal, is included as are active citizenship, personal fulfilment, social inclusion and professional, vocational and employment related aspects.

The lifelong learning framework that has evolved over time views, first, the demand for, and the supply of, learning opportunities throughout the lifecycle of a person and comprises formal, non-formal, and informal learning. Secondly, it requires a shift of attention from a supply-side focus to the demand side of meeting learner needs. Thirdly, increased attention is required to developing the capacity and enhancing motivation for 'learning to learn' through self-paced and self-directed learning. And lastly, the lifecycle view recognizes the multiple goals of education – such as personal development; knowledge development; economic, and social and cultural objectives – priorities among these objectives may change over the course of an individual's lifetime.

The need for a lifelong learning approach has been brought to the fore by a number of important socio-economic forces. The increasing importance of knowledge-based economy is constantly raising the threshold of skills demanded by the employers. There is a relative decline in demand for low-level skills. Career jobs are fewer and individuals experience more frequent changes in jobs over the working life because of volatile market and shorter cycles in the development and new demands for products and services. As a result there is a need for continuous renewal and updating of skills, which is essential for structural adjustment, productivity growth, innovation and effective reallocation of human resources. It was found that unemployed individuals have fewer learning opportunities than the employed, thus

potentially creating an underclass of disadvantaged population. Opportunities for those with secondary school education or less are significantly fewer than for those with post-secondary education; women are at a relative disadvantage compared to men (OECD 2007, Ahmed *et al.*, 2012).

In Bangladesh, the national skills policy states that the government will establish, maintain and improve a more coordinated education and training system within the concept of lifelong learning. Education, pre-employment training and training the unemployed are recognised as the responsibility of government with contribution and collaboration of the private sector. The national education policy of Bangladesh has the objective to ensure quality of general education at primary and secondary level to enable young people to take full advantage of skills development opportunities and move on smoothly to the world of work. The policy also envisages quality improvement in higher education in all disciplines and motivating students and teachers to engage in research through the cultivation of knowledge and sciences, thus enhancing the capabilities of the human resources in the country.

Lifelong learning as the organising concept for education and learning requires that literacy development and skills development for life and livelihood are brought together and connected through a wide spectrum of learning opportunities for young people and adults throughout life. UNESCO urged the UNESCO Institute for Lifelong Learning (UIL, Hamburg) to lead the process for establishing the Global Alliance for Literacy within the framework of lifelong learning (GAL). Since literacy will play a direct or indirect role in achieving many of the Sustainable Development Goals (SDGs), GAL is aimed at accelerating progress towards the 2030 Agenda for Sustainable Development. (GAL, http://www.uil.unesco.org/literacy/global-alliance-for-literacy).

On 3 November, 2016 in New York, the United Nations General Assembly adopted with consensus its resolution on literacy: 'Literacy for life; shaping future agendas' (A/C3/71/L9/Rev1). The resolution calls upon Governments to scale up literacy programmes, recognizing these as the foundation for lifelong learning. It urges countries to persistently implement national programmes and measures to meet the diverse learning needs through innovation; technology; partnerships and cross-sectoral approaches (UNESCO 2016, 'International community calls on UNESCO to lead efforts towards a literate world for all' 8.11.2016).

The tendency has been to look at learning in literacy and skills development as discrete programmes and activities carried out by different agencies for different target groups. It has been observed that the separate formulation of EFA 2015 target 3 for skills development and target 4 for literacy, without emphasizing the links and interaction between them, have led to separation of efforts undermining the outcome for both objectives. A carry-over of this mind-set seems to be reflected in the formulation of SDG target 4.4 on skills and 4.6 on literacy, noted above, again neglecting to emphasize the mutual complementarity and beneficial interaction between the two. It will be now up to countries to design and implement their literacy and skills development efforts taking an integrated approach (Ahmed 2014).

C. Outline of the report

This report contains six chapters along with an overview, annexes and a bibliography. Following the overview, this first chapter provides the background of the study and its scope covering three specific issues. Chapter 2 presents study methodology which includes a description of instruments used and their reliability and validity, sampling procedure, field operation, and strengths and weaknesses of the study.

The next three chapters provide the findings of this study. These chapters are thematic. Each of the chapters represents the three issues covered. Chapter 3 is on literacy, Chapter 4 is on skills acquisition, and Chapter 5 is on lifelong learning opportunities and challenges. Each of the issues were analysed in terms of gender, geographic location, educational qualifications, and socioeconomic background of the sample respondents.

Chapter 6, the final one, discusses the findings and offers policy recommendations. Key messages from the previous chapters, referring to other relevant studies as necessary, and policies and plans, are presented. Policy recommendations are made based on the findings and making references to current discourse on the themes of the study. The annexes provide additional tables related to findings, instruments used and some methodological notes.

Chapter Two

Objectives and Research Design

A nationally representative sample survey with scope for divisional, residence-wise (urban/rural), and gender-based estimates was the approach adopted for conducting this study. Starting with the objectives for the *Education Watch* 2016, this chapter provides information on the instruments used, population under study, sample and sampling strategy, field operation procedures, reliability and validity of the estimates, and strengths and weaknesses of the study.

A. Objectives

With the three major themes in mind (viz., literacy, skills acquisition, and lifelong learning), the following are the objectives of *Education Watch* 2016:

1. To estimate the proportions of the population that are at various levels of literacy attainment and the variations in terms of gender, geographic locations, and socio-economic status.
2. To examine the participation of people in skills development apart from general education, use of those skills in everyday life, and the relationship between educational qualifications of people and their skills acquisition.
3. To investigate the existing learning opportunities of the population outside the national education system, and how these contribute to creating lifelong learning opportunities for people.
4. To explore the relationships among literacy levels, educational qualifications, acquired skills and life-long learning needs and opportunities and determine their plausible socioeconomic correlates.

B. Instruments for information collection

Four separate instruments were used for collecting the necessary data. These are: a household survey questionnaire, a literacy assessment test, a skills survey questionnaire, and a questionnaire for the survey on access to ICTs and reading materials as ingredients of lifelong learning.

Household survey questionnaire: Age, gender, educational qualification, type of educational institution and current enrolment status of all members of the household were the basic information collected through this questionnaire. This instrument allowed identification of the eligible respondents for the literacy test. In addition, socioeconomic information of households were also collected using this questionnaire which included religion, ethnicity, electricity availability at home, labourers' engagement status, yearly food security status of households, and information on wealth. This questionnaire provided necessary household-level background information of the respondents. (Annex 2.1)

Skills survey questionnaire: This instrument included details of educational information of the respondents and education of their parents. It had three sections for collecting information on three categories of skills of interest: longer technical and vocational education and trainings received, short training courses attended (less than a year), and informal/non-formal skills training. A number of questions were asked in each section of the questionnaire which included access, skills type, sources of learning, use of skills, reasons for not participating in skills training, and related challenges. (Annex 2.2)

Survey of lifelong learning opportunities: This questionnaire had two parts. The first part contained information on access to selected Information and Communication Technologies (ICTs) and reading materials which were thought to be supportive in creating lifelong learning opportunities. The second part contained information that respondents considered necessary for occupational improvement and personal and social wellbeing. Why such information is needed and related issues and constraints and challenges were also covered in this. (Annex 2.3)

Literacy assessment test: Two equivalent sets of test instruments, which were developed and used for *Education Watch* 2002 study, were used in this study too. Each test has four parts: reading, writing, numeracy (the 3 R's), and application of these three. Total number of items in each test was 24 – six in each section. Of the two sets of tests, one was assigned randomly to respondents. Details of the development procedure of this test are available in *Education Watch 2002* report (Ahmed, Nath and Ahmed 2003). The two sets of assessment test are provided in Annex 2.4.

C. Assessment of literacy status

Considering the socio-cultural context of Bangladesh and the country's development stage in 2002, the following definition of literacy was adopted:

> *Possession of skills in reading, writing and numeracy related to familiar contents and contexts and the ability to use these skills in everyday life in order to function effectively in society*.

Attainment of literacy is a continuous process. Therefore, it is important to recognise the continuum of literacy skills in the measurement process. In order to reflect this, four levels of literacy were defined. These are *non-literate, semi-literate, literate at initial level,* and *literate at advanced level.* The following are the descriptions of the levels.

Non-literate: *Lack of ability to decode alphabet, recognise words, write words or count objects; and, therefore, inability to use literacy skills in real-life situations.*

Semi-literate: *Ability to recognise and write some words, to count objects and use numbers at a very basic level; extremely constrained in use of the literacy skills in real-life situations.*

Literate at initial level: *Ability to read and write simple sentences in a familiar context; possessing skills of the four basic rules of arithmetic; limited use of these abilities and skills in a familiar context in real-life situations.*

Literate at advanced level: *Ability to read and write with fluency in varying contexts; competency in the four arithmetic rules and mathematical reasoning; ability to use these skills in everyday life and independently in further learning.*

Despite the continuous nature of literacy skills, it is still necessary and useful, for the purpose of assessment, to have cut-off points on the measurement scale. It is evident that of the four categories (determined by scores on the literacy test as explained below), the first two categories, by definition, cannot be considered to represent any meaningful literacy skill. The cut-off point for literacy has to be a score that places one above these two categories. In other words, those falling in the category of literates at the *initial* level and those at the *advanced* level can be collectively designated as literate. A short description of the items put in the test is provided in Table 2.1.

An equal weight was given to each of the four components of assessment – 25 marks for each, totalling 100 for the whole test. This means that a person could have a score between 0 and 100 in the overall test and between 0 and 25 in an individual component. The score plan is provided in Annex 2.5. Scores for each of the literacy level is provided in Table 2.2.

Table 2.1
Table of contents for literacy assessment test

Reading	Writing	Numeracy	Application of 3Rs
Two words with three alphabet characters in each	Two words familiar in everyday life	• Counting objects • Finding out a missing number	• Recognise time • Recognise left and right on a picture
Two sentences related to everyday life	Two sentences in a familiar context	Simple arithmetic • subtraction • multiplication	• Know different sides of a map • Ability to write own address
A comprehension passage containing environmental messages followed by two questions of MCQ type	Describe an object with five sentences	Problem solving needing skills of a) subtraction and division and b) multiplication and division	• Ability to prepare a simple balance sheet • Absorbing message from a billboard

Source: Ahmed, Nath and Ahmed (2003)

D. Study population and sampling

All persons aged 11 years and above were the study population. The main reason for selecting this age-range is that it is the post-primary age in the country (the primary school age is 6-10 years). In addition, this allows for comparison with the literacy assessment done under *Education Watch 2002* which was carried out on this age-group. This age-group was also kept for the skills survey.

Table 2.2
Distribution of score by literacy levels

Literacy levels	Required score (%)	Expected Score band	
		Each area of assessment	Whole test
Non-literate	< 25%	0 – 6.24	0 – 24.99
Semi-literate	25 – 49%	6.25 – 12.49	25 – 49.99
Literate- initial level	50 – 75%	12.50 – 18.74	50 – 74.99
Literate- advanced level	75% +	18.75 – 25	75 – 100

Source: Ahmed, Nath and Ahmed (2003)

A multi-stage cluster sample survey based on stratified sampling was used. The whole country was divided into nine mutually exclusive strata. Seven of those were the rural areas of seven administrative divisions. Two represented the urban areas. Thus the strata were: Rural Barisal Division, Rural Chittagong Division, Rural Dhaka Division, Rural Khulna Division, Rural Rajshahi Division, Rural Rangpur Division, Rural Sylhet Division, City Corporations, and the municipalities (*Paurasavas*). As indicated above, a multistage sampling strategy was adopted for each stratum. Note that Bangladesh had 487 *upazilas* in seven rural divisions, 79 *thanas* under 11 City Corporations, and 300 municipalities at the time of fieldwork of this study.

The majority of the issues covered in this study are measured dichotomously or categorically. These included literacy status or access to various skills and lifelong learning opportunities. Considering literacy as a categorical variable (mentioned as levels of literacy in previous section), the minimum sample size for an estimate was calculated to be 576 [for 50% literacy rate, 95% confidence level, 5% error of precision, and design effect of 1.5]. To allow gender-wise separate estimates this figure was doubled for each stratum. This means that 1,152 [= 576 x 2] individuals were required for each stratum. The estimated sample size for the national survey was, therefore, 10,368 [= 1,152 x 9]. Based on previous experiences of *Education*

Watch it was calculated that for each stratum, 390 households would be required to have 1,152 individuals of respective age-group (11 years and above). Therefore, a total of 3,510 households [= 390 x 9] were brought under the national survey.

A four-stage sampling procedure was adopted in each stratum. At the first stage, 30 *upazilas* (*pourasavas* or *thanas* for urban strata) were selected from each stratum. This was done through systematic random sampling technique. One union (ward for urban) was selected randomly from each *upazila/ thana/ pourasava*. One neigh bourhood (village for rural and *mahallah* for urban stratum) was selected randomly from each of the selected union/ward. There fore, 30 neigh bourhoods were selected from each stratum or 270 [= 30 x 9] for whole of Bangladesh. Latest available Census information produced by the Bangladesh Bureau of Statistics (BBS) was used for this purpose. It turned out that all 64 districts of the country were represented in the sample (Figure 2.1).

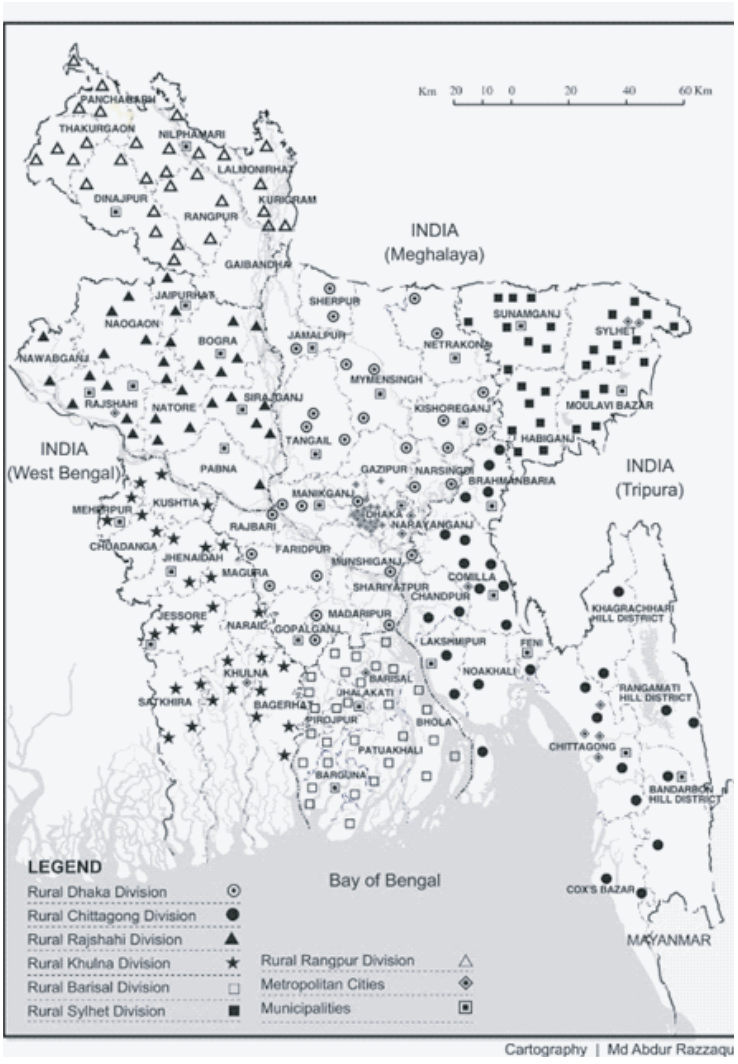
Thirteen households were selected from each neighbourhood. This was done starting from the north-west corner of the selected neighbourhood, following a systematic random sampling procedure and taking every fifth household. All eligible members (11 years and above) of the selected households were subjected to literacy assessment test and interview for access to skills and lifelong learning opportunities.

To identify the first household in the north-west corner, a sketch of the neighbourhood was drawn with the help of different groups in the local community. If the selected neighbourhood was too small to get 13 households, the plan was to choose the nearest neighbourhood to do the rest of the work in a similar fashion. In reality, no such situation occurred. On the other hand, some extremely big sized neighbourhoods were found in the sample. In such cases, the survey stopped when the adequate number of households was reached.

A total of 3,510 households from 270 neighbourhoods were covered through the household survey. A total of 15,265 individuals of all ages lived in these households. Of these, 11,668 were aged 11 years and above – the targeted respondents of this study. Of them, 11,280 could be brought under the survey (the weighted response rate

Figure 2.1

Map showing the sample spots (clusters)



being 96.5%). Of the respondents 53.6% were female. The average household size was 4.4 and the proportion of population aged 11 years and above was 76.5%. These figures are comparable with those in other sources including *Education Watch* and the Bangladesh Bureau of Statistics (www.bbs.gov.bd, Nath *et al.* 2015). Table 2.3 provides samples for different strata at a glance.

Table 2.3
Study sample at a glance

Strata	Number of neighbourhoods	Number of households	Population		Respondents	
			Total	11 years & above	Total	% female
Rural Dhaka Division	30	390	1,718	1,321	1,267	54.4
Rural Chittagong Division	30	390	1,768	1,291	1,250	55.8
Rural Rajshahi Division	30	390	1,608	1,280	1,251	51.7
Rural Khulna Division	30	390	1,632	1,281	1,215	52.6
Rural Barisal Division	30	390	1,658	1,289	1,251	55.7
Rural Sylhet Division	30	390	1,979	1,396	1,355	53.7
Rural Rangpur Division	30	390	1,645	1,271	1,230	51.7
City corporations	30	390	1,594	1,234	1,203	52.4
Municipalities	30	390	1,663	1,305	1,258	54.3
Total	270	3,510	15,265	11,668	11,280	53.6

Are the unsuccessful respondents different from the successful ones for literacy test and other interviews? A multiple regression analysis predicting the successful respondents indicates that the older aged, females, respondents with literate household heads and from small ethnic groups were more likely to be respondents than others. As these predictors explained only 1% of the dependent variables, no conclusion could be drawn about the background of the successful and unsuccessful respondents. Moreover, the unsuccessful ones formed only 3.5% of the sample, which is about the same as other major surveys carried out in Bangladesh.

E. Weighting

Since stratum population in terms of number of individuals aged 11 years and above varied substantially, weights were used in pooling estimates for rural Bangladesh, urban Bangladesh and national levels. Standard statistical procedures were followed to determine the weights for different strata (Cochran 1977). Population distribution data in terms of stratum defined in this study gathered from various publications of the Bangladesh Bureau of Statistics based on Census 2011 was used for this purpose (www.bbs.gov.bd). Annex 2.6 gives more details on the technical procedures.

F. Research assistants and their training

A total of 116 research assistants were recruited for field investigation of the study. All of them had at least a Bachelor's degree. Most of them had previous experience as field investigators or supervisors in related studies including the *Education Watch*.

Intensive training was provided to these research assistants prior to sending them for actual work. Training was held in two batches; first batch on 2–6 May, 2016 and second batch on 7–11 May, 2016. The training included classroom presentations, group discussions, question-answer sessions, role-plays, individual

presentations, and field practice. A manual describing all details of the fieldwork including explanation of each of the questions was used in the training. Researchers from the Educational Research Unit of the Research and Evaluation Division of BRAC conducted the training sessions. Finally, 100 research assistants were selected for the work based on their performance in training, half of whom were female. Eight persons were appointed as supervisors.

G. The field operation

Twenty-three field teams were formed for field data collection, with four research assistants in each team – two females and two males. The teams moved to the respective field locations soon after the training. One of the team members was given the responsibility of team leader, who distributed work among the other members, co-ordinated all activities for the team and oversaw the quality of the work. In general, each team spent four days in a cluster; however, more days had to be allowed in some urban clusters. The household survey was done first. If any eligible person for literacy assessment test was available during the household survey, the test was given after recording the profile of all members and household information. For others, a later time was set for giving the test. Other instruments were administered after completion of literacy test. In some cases, a new time had to be scheduled for these. The field teams were flexible in this. It was possible to carry out the field work (literacy test and administration of other instruments) at the respondents' suitable time because of the team's stay in each cluster for four days.

The principal respondent for the household survey was its head. In his/her absence, the spouse provided the information. In some cases, another adult person (aged 18 years and above) of the household had to be considered if neither the head nor spouse was available. Sometimes the respondents took help from other members of the household in responding to the questions. Some took help from the neighbours, especially in respect of exact age of the household members. As there were female research assistants in the teams, no refusal was encountered from female respondents due to *Purdah*. Age determination was the most difficult and time-consuming task in the household survey. Events calendar was used to estimate age. Household survey in urban areas took more time than in rural areas. Because of security concerns, access to urban households was relatively harder and the respondents asked many questions before allowing interviewers access. This is why more days had to be allocated in these areas. The interviewers carried identity cards issued by BRAC and CAMPE. On average, 20 minutes were spent for a household interview in rural areas, and 25 minutes in urban areas.

The eligible persons for literacy assessment test were given either of the sets. Two research assistants administered test of each person, one conducting the actual test and the other ensuring that the environment was congenial by keeping noise down and onlookers away. Interestingly, such disturbances seemed to be much less than that in 2002. Attention was given to ensuring equal distribution of the sets by gender. Of the 11,280 individuals tested, 50.1% was given Set A and 49.9% Set B. No difference occurred in this among males and females or by stratum.

The tests and interviews were carried out mostly at the premises of the respondents' homes. For some, these had to be taken at their workplaces, especially in the urban areas. There were some respondents who work from dawn to dusk and their workplaces far away from home. Tests of these persons were offered at night or in the early morning. Mobile phones made communications easy in order to fix a time for interview. In some cases, more than one attempts had to be made to get hold of them depending on their job type. All efforts have been made to ensure testing and interviewing of all eligible persons. Educational information of them were collected while interviewing them for skills acquisition and lifelong learning

opportunities. On average, 30-35 minutes were required to administer the literacy assessment test on each of the respondents and similar time for rest of the interviews.

Each supervisor was responsible to oversee the work of three field teams. They did random visits of the teams, oversaw the actual interview (spot-check), examined previously done work and conducted re-interviews. They also checked whether the teams were following the instructions given in the training regarding sampling and other issues. The field teams or their supervisors consulted with the members of the study team in Dhaka over phone, as and when necessary.

The members of the Educational Research Unit and the Field Management Unit of BRAC-RED visited many of the field teams at their work. They made random check of the previously done work and observed actual fieldwork including interviews and administration of the test. The fieldwork started on 12 May and ended on 18 July 2016.

H. Assessing the test papers

The filled-up questionnaires and the completed answer papers of literacy assessment test were returned to the research headquarters in BRAC Research and Evaluation Division, Dhaka. A team of eight persons who had participated in fieldwork were engaged to assess the answer papers and coding of the questionnaires. A manual was prepared for this purpose and the team was given a half-day orientation about their tasks. The questions in the test were divided into four parts and each part was given to two persons for assessing. Assessment of the literacy test/answer papers took one and a half month. The results of the assessment were then computerized.

I. Validity and reliability

Reliability and validity of the literacy test instrument was ensured during test development in 2002 (Ahmed, Nath and Ahmed 2003). As mentioned in the *Education Watch 2002* report, intrinsic validity of the test instrument was derived from the purpose of the assessment, the process followed for defining literacy skills including the skill areas and the levels of skills, the review of existing definitions, and the review of expected competencies in the curricula of primary education and literacy courses. External validity of the items was ensured through careful item selection and analysis of the data from a pilot trial of the instrument. Items for which scores showed significant correlation with completed years of schooling were retained in the final instrument.

The reliability of individual items could be ascertained from *Kappa* values calculated from pilot study data during instrument development in 2002. It is a measure of the degree of non-random agreement between observations of the same test. Only those items having *Kappa* value significantly greater than zero were selected. Thus, the item selection process ensured reliability of each of the items independently. Again, from the national literacy assessment test data of 2002, it revealed that the data were 94% reliable.

Attempt was also made to check the reliability of this year's national literacy assessment data. Similar to the past, the split-half method was used (Carmines and Zeller 1997, Ferguson and Takane 1989). Using Spearman-Brown formula, the reliability coefficient was found to be 0.93 at the national level. This indicates that the literacy assessment test data of 2016 were 93% reliable. When data were analysed separately by gender, area of residence and strata, similar levels of reliability were observed.

J. Strengths and weaknesses

Like any other sample survey-based research, this study also bears some strengths as well as limitations. The strengths and limitations of the study are presented below:

Strengths

1. Issues dealt in this study were not randomly picked. Thoughtful discussion in *Education Watch* group on the fourth Sustainable Development Goal (SDG4) produced the identified issues. This study not only presents the current status on the issues, but is expected also to act as baseline for the future, specifically during the SDG period.

2. Departing from 'self-reported' method of estimating literacy, this study is an effort of *Education Watch* to estimate literacy skills of the population at four specific levels. Except some initiatives taken internationally, especially in the developed countries, literacy, in general, is assessed dichotomously. Attempt made in this study is a recognition of continuum of literacy skills. Use of the same test instrument in 2002 and 2016 allows to see the changes over time.

3. Attempts were made to explore various categories of skills that the Bangladeshis have and their estimates along with access to various means of lifelong learning and demands and constraints of lifelong learning opportunities and their challenges. These are new initiatives in respect to the country context, findings of which have important policy implications in terms of achieving SDG 4.

4. This study was designed in such a way that allows national estimates of the issues dealt in this study but also breakdowns for gender, area of residence, various rural divisions and urban locations. Analyses based on the above along with socioeconomic characteristics of the respondents helped identifying the variations in the population. Such analysis is helpful for preparing policies in line with access and quality with equity.

5. Exploration of relationships among educational qualifications, literacy skills, other skills acquisition and lifelong learning opportunities is an interesting and valuable part of this study. This will help identifying strengths and weaknesses of the mainstream school education provision in the country.

Weaknesses

1. Selection of eligible respondents (11 years or more) was dependent on correct reporting of age of individuals. Age determination was the hardest job for the interviewers. Although all standard measures used by demographers including use of events calendars were taken to obtain best estimates, some errors cannot be ruled out.

2. Constructing a definition of literacy, dividing skills on a continuous scale into four ordinal categories, applying criteria for determining cut-off points for each level of skills, and deciding on the content of the literacy tests and score values assigned to items in the tests, although based on careful professional judgement of experts and extensive review of literature, remain a matter of judgement. Differences of views regarding judgement exercised are always possible. The context in 2002 when the test was designed may have changed in 2016. However, for the sake of comparison it was decided in favour of the approach used here.

3. Information on skills acquisition of the respondents was based on their verbal reports. No test was administered to know whether they actually have the reported skills or the level of skills they acquired. Although testing of skills in a household-based national sample survey is a hard task, the drawbacks due to this cannot be underestimated.

4. About 3.5% of the eligible persons could not be assessed because they were unavailable at home during the survey period (a field team spent four days in a cluster). Although this 'non-response' did not affect the adequacy of the total sample size, the possibility of introduction of some errors in the estimates cannot be ruled out.

Chapter Three

Literacy Status of the Population

This chapter presents results from the literacy assessment test administered on individuals aged 11 years and above. In addition to national estimates, literacy levels are determined for different population groups with male-female, urban-rural, geographic divisions and age breakdown. Analyses of various components of literacy (e.g., the 3 R's and their application) are also provided. Finally, changes taking place in literacy status between 2002 and 2016 are shown.

A. Literacy by skill levels, gender and geography

Following the measurement criteria as mentioned in Chapter 2, this analysis starts by dividing the sample respondents into the four levels of literacy as below:

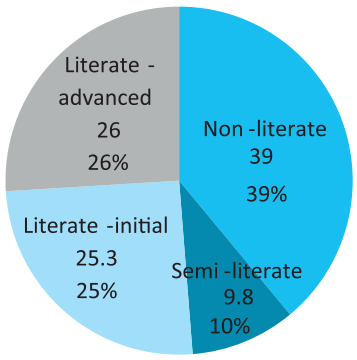
- Non-literate (less than 25% of score)
- Semi-literate (score between 25%-49%)
- Literate at initial level (score between 50%-74%), and
- Literate at advanced level (score of 75% and above).

Results are shown in Figure 3.1. Of the respondents who participated in the literacy assessment in 2016, 39% did poorly in the test. They received less than a quarter of the maximum score and were categorized as *non-literate*. Another 9.8% received a score between a quarter and a half of the maximum and thus categorized as *semi-literate*. These two groups of respondents could not cross the threshold of minimum acceptable level of skills to be qualified as literate, as decided for this study. Over a quarter of the respondents received a score between a half and three-quarters of the maximum and therefore has been labelled as *literate at initial level;* 26% of the respondents received more than three-quarters of the maximum score and were labelled as *literate at advanced level*.

The first two categories of respondents, i.e., the non-literates and semi-literates, did not have the literacy skills usable in any practical situation of life; therefore, cannot be considered as literate. On the other hand, the latter two categories of respondents possess a level of skills usable in practical life situations and can be considered as literate. Thus, according to the methodology and assessment instrument used in this study, 51.3% of the population of Bangladesh aged 11 years and above were literate in 2016, just over a half of whom belonged to *advanced* level of literacy.

Figure 3.1

Distribution of respondents by literacy levels



Source: Education Watch National Literacy Test, 2016

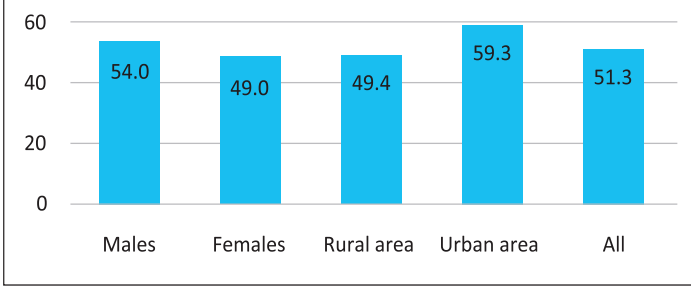
Translating the proportional distribution of the respondents at various levels of literacy, numbers in the population belonging to various levels of literacy were calculated. According to Ahmed *et al.* (2005) projection, the population of Bangladesh aged 11 years and above were approximately 130.6 million in 2016. Of them 50.9 million were *non-literate*, 12.8 million *semi-literate*, 33 million *literate at initial level*, and 33.9 million *literate at advanced level*. By the definition applied in this study, 63.7 million may be considered non-literate and 66.9 million literate in the Bangladesh population 11 years and above.

Females lagged behind males in literacy rate by five percentage points (Figure 3.2). The rates were 49% for females and 54% for males ($p<0.001$). Among males, 37.4% were *non-literate*, 8.6% *semi-literate*, 22.6% *literate at initial level*, and 31.3% *literate at advanced level* (Table 3.1). These rates were 40.3, 10.8, 27.5,

and 21.4%, respectively for females. Males were ahead of the females at the *advanced* level of literacy by 10 percentage points, but females were marginally ahead at the other three levels.

Figure 3.2

Literacy rate by gender and residence



Source: Education Watch National Literacy Test, 2016

The urban-rural gap in literacy rate was much higher than the male-female gap. The respondents of rural areas were about 10 percentage points behind their urban counterparts (Figure 3.2). The rate was 59.3% among the respondents of urban areas and 49.4% among those in rural areas (p<0.001). Of the rural respondents, 40.7% belonged to the *non-literate level*, 9.9% *semi-literate*, 25.2% *literate at initial level*, and 24.2% *literate at advanced level* (Table 3.1). The figures were, 31.6, 9.1, 25.6 and 33.7%, respectively for the respondents in urban areas. Although roughly an equal proportion of urban and rural respondents belonged to *semi-literate* and *literate at initial levels*, urban respondents were much ahead of rural respondents at the *advanced level literate* status and vice versa at the *non-literate* status. The gender segregated analysis for rural and urban respondents is provided in Annex 3.1.

Gender difference in literacy rate was observed in both rural and urban areas (Table 3.2). For instance, in rural areas, 52% of males and 47.1% of females were literate (p<0.001). In urban areas, 62.2% of males and 56.9% of females were literate (p<0.01). The gender-gap was 4.9 percentage points in rural areas and 5.3 percentage points in urban areas. Statistically significant difference by residence was observed among both males and females. Note that 38.6% of urban males had *advanced level literacy skills* (Annex 3.1). The same advanced level of literacy skill was observed among over 29% of rural males and urban females. Only 19.5% of rural females had this level of literacy skills.

Table 3.1

Percentage distribution of respondents by literacy levels, residence and gender

Levels of literacy	Gender		Residence	
	Males (5,235)	Females (6,045)	Rural (8,819)	Urban (2,461)
Non-literate	37.4	40.3	40.7	31.6
Semi-literate	8.6	10.8	9.9	9.1
Literate-initial	22.6	27.5	25.2	25.6
Literate-advanced	31.3	21.4	24.2	33.7
Total	100.0	100.0	100.0	100.0

Figures in the parentheses indicate number of respondents

Source: Education Watch National Literacy Test, 2016

Literacy rates significantly varied by stratum (Table 3.3). The rate was highest in the city corporations (63.3%) and lowest in rural Chittagong division (45.4%) – a difference of 17.9 percentage points between the highest and the lowest stratum. Rural Barisal division and the municipalities secured the second and the third positions from the top with a minor difference between them. The

Table 3.2

Percentage of literate respondents by residence and gender

Residence	Gender			Level of significance
	Male	Female	Both	
Rural Bangladesh	52.0 (4,087)	47.1 (4,732)	49.4 (8,819)	p<0.001
Urban Bangladesh	62.2 (1,148)	56.9 (1,313)	59.3 (2,461)	p<0.01
Level of significance	p<0.001	p<0.001	p<0.001	
All Bangladesh	54.0 (5,235)	49.0 (6,045)	51.3 (11,280)	p<0.001

Figures in the parentheses indicate number of respondents

Source: Education Watch National Literacy Test, 2016

literacy rates for these two strata were 57.3 and 56.5%, respectively. In addition to these top three strata, rural Rajshahi and Khulna divisions also had a literacy rate higher than the national average. The literacy rate was less than 50% in four strata; these are rural Dhaka (48.3%), Sylhet (48%), Rangpur (47.3%), and Chittagong (45.4%) divisions. Statistically significant gender difference in literacy rate favouring the males was observed in four strata (Table 3.3). These are rural Chittagong (p<0.01), Sylhet (p<0.001) and Rangpur (p<0.05) divisions and the municipalities (p<0.05). The gender gap was highest in rural Sylhet division (9.2 percentage points), followed by rural Chittagong division (7.2 percentage points), Rural Rangpur division (6.8 percentage points) and the municipalities (6.4 percentage points), respec-tively.

Table 3.3

Percentage of literate respondents by strata and gender

Strata	Gender			Level of significance
	Male	Female	Both	
Rural Dhaka Division	49.7 (578)	47.2 (689)	48.3 (1,267)	ns
Rural Chittagong Division	49.4 (553)	42.2 (697)	45.4 (1,250)	p<0.01
Rural Rajshahi Division	54.8 (604)	51.2 (647)	52.9 (1,251)	ns
Rural Khulna Division	56.8 (576)	51.3 (639)	53.9 (1,215)	ns
Rural Barisal Division	57.8 (554)	57.0 (697)	57.3 (1,251)	ns
Rural Sylhet Division	52.9 (628)	43.7 (727)	48.0 (1,355)	p<0.001
Rural Rangpur Division	50.8 (594)	44.0 (636)	47.3 (1,230)	p<0.05
City corporations	65.3 (573)	61.6 (630)	63.3 (1,203)	ns
Municipalities	60.0 (575)	53.6 (683)	56.5 (1,258)	p<0.05
Level of significance	p<0.001	p<0.001	p<0.001	

Figures in the parentheses indicate number of respondents

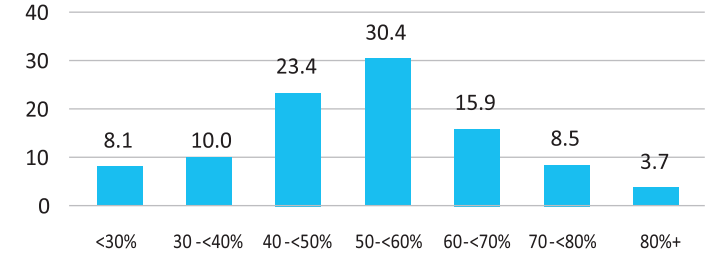
Source: Education Watch National Literacy Test, 2016

Not much variation by strata was observed in the *semi* and *initial* level literacy skills. Strata-wise variation in literacy rate was mostly due to variation in the proportions of respondents belonging to *non-literate* and *literate at advanced level* categories (Annex 3.2). Nearly 37% of the respondents of the city corporations, 32.2% of those of rural Barisal division, 31.5% of those of the municipalities, 29.7% of those of rural Khulna division, 28.4% of those of rural Rajshahi division, 22.8% of those of rural Dhaka division, 21.6% of those of rural Chittagong division, 20.8% of those of rural Sylhet division and 20.2% of those of rural Rangpur division acquired *advanced level* of literacy skills. The difference between the highest and the lowest stratum in acquiring the *advanced level literacy skills* was, therefore, 16.6 percentage points.

Cluster (neighbourhood)-wise analysis of literacy rate was also performed. The rate varied from 9.8% to 93.8%. Therefore, the gap between the neighbourhoods with the highest and the lowest literacy rates was a staggering 80 percentage points. Out of 270 neighbourhoods, 8.1% had a literacy rate below 30%, 10% had 30-<40%, 23.4% had 40-<50%, 30.4% had 50-<60%, 15.9% had 60-<70%, 8.5% had 70-<80%, and 3.7% had 80% or more (Figure 3.3). Literacy rate was below the national average in 46.7% of the neighbourhoods. Literacy rates in two thirds of the neighbourhoods of rural Rangpur division, and more than half of the neighbourhoods of rural Dhaka, Chittagong, Rajshahi and Sylhet

Figure 3.3

Percentage distribution of neighbourgoods by literacy rate



Source: Education Watch National Literacy Test, 2016

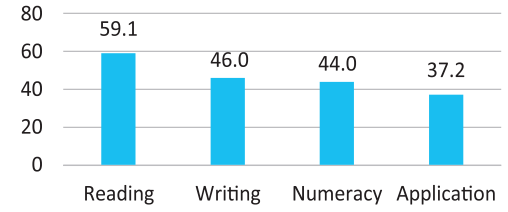
divisions were below the national average. The same was also observed in less than half of the neighbourhoods of rural Khulna division and the municipalities and a quarter of the neighbourhoods of rural Barisal division and city corporations.

B. Performance in literacy components

The literacy assessment test had four components with equal weights in each: reading, writing, numeracy, and application of the 3R's. Analysis of the components shows that the respondents did best in reading part of the assessment test, followed by writing, numeracy and application of the 3R's, respectively (Figure 3.4). In reading, 6.1% of the respondents had *initial* and 53% had *advanced* level skills – totaling 59.1% possessing this skill at a functional level (Table 3.4). With 21.7% at *initial* level and 24.3% at *advanced* level – 46% of the respondents had writing skills. With 17.6% at *initial* level and 26.4% at *advanced* level – 44% of the respondents had numeracy skills. Finally, a fifth of the respondents had *initial* level and 17.2% had *advanced* level skills in application of the 3R's – totaling 37.2%. The above results clearly show a wide variation in the performance of the respondents among various literacy components. Difference between the highest and the lowest performance between components, reading and application of the 3R's, respectively, was 21.9 percentage points.

Figure 3.4

Percentage of respondents having at least initial level of skills by components



Source: Education Watch National Literacy Test, 2016

Both males and females performed equally in reading and writing parts of the assessment test, but females lagged behind males in the other two parts (Table 3.5). The gender gap was about 10 percentage points in numeracy (males 49.3% versus females 39.5%; p<0.001) and 13.2 percentage points in application of 3Rs (males 44.3% versus females 31.1%; p<0.001). Proportionately more males than females acquired *advanced level* of skills in these two assessment areas, showing a persistence of gender difference in these. For instance, a third of the males and a fifth of the females acquired *advanced level* of numeracy skills and 22.3% of males and 12.8% of females acquired *advanced level* of skills in application of the 3R's (Annex 3.3).

Table 3.4

Percentage distribution of respondents by literacy levels and components of literacy

Literacy levels	Components of literacy			
	Reading	Writing	Numeracy	Application of 3Rs
Non-literate	35.9	44.1	44.9	42.4
Semi-literate	5.0	9.9	11.1	20.4
Literate-Initial	6.1	21.7	17.6	20.0
Literate-advanced	53.0	24.3	26.4	17.2
Total	100.0	100.0	100.0	100.0

Sample size= 11,280

Source: Education Watch National Literacy Test, 2016

The urban respondents significantly surpassed their rural counterparts in each of the four assessment areas (Table 3.5). Two thirds of the urban residents and 57.3% of the rural residents had a functional level of reading skills (p<0.001). About 56% of the respondents of urban areas and 43.7% of those in rural areas had writing skills (p<0.001). A minimum level of numeracy skills was acquired by about 52% of urban and 42.2% of rural respondents (p<0.001). In the case of application of the 3R's, 45.2% of urban respondents acquired the minimum level, which was 35.3% among rural respondents (p<0.001). The urban-rural difference was 12.2 percentage points in writing skills and 9-10 percentage points in each of the other

three skills. The urban-rural difference actually was created by the difference in achieving *advanced* level skills. Such a gap was around nine percentage points in both reading and writing, 8.6 percentage points in numeracy, and 7.7 percentage points in application of 3Rs (Annex 3.4).

Table 3.5
Percentage of respondents having at least initial level of skills by components of literacy, gender and residence

Components	Gender		Level of significance	Residence		Level of significance
	Males (5,235)	Females (6,045)		Rural (8,819)	Urban (2,461)	
Reading	60.0	58.3	ns	57.3	66.7	p<0.001
Writing	46.9	45.2	ns	43.7	55.9	p<0.001
Numeracy	49.3	39.5	p<0.001	42.2	51.9	p<0.001
Application	44.3	31.1	p<0.001	35.3	45.2	p<0.001

Figures in the parentheses indicate number of individuals under test
Source: Education Watch National Literacy Test, 2016

Component-wise, gender difference was explored separately for the respondents of rural and urban areas (Annex 3.5). However, a similar result emerged. No gender difference was observed in reading and writing components by geography. On the other hand, males performed significantly better than females in numeracy and application of 3Rs in both urban and rural areas. Gender gap was wider in application of the 3R's than in numeracy in both the areas.

Proportions of respondents reaching the *initial* level of skills in various assessment components are provided separately for each stratum in Annex 3.6. Statistically significant variation by stratum was noticed in each of the components (p<0.001). The respondents of the city corporations showed the best performance in each of the assessment components, followed by the municipalities and rural Barisal division mostly from a similar distance. The rural Chittagong division had the worst performance in each of the four assessment components.

Item-wise analysis is provided in Annex 3.7. On average, two thirds of the respondents could read words, 58% the given sentences, and 46% could comprehend the given passages. Over 42% of the respondents could write the given words, 40.3% could write the given sentences, and 43% could write descriptions of given subjects. Most of the respondents could count objects, and less than 70% could find out a missing number. Half of the respondents could do a subtraction and 43.8% could do multiplication, and about a quarter was capable of solving word problems. Although 68.8% of the respondents could write their names correctly, 51.8% could write the names of their neighbourhoods (villages or *mahallas*), and about 48% could write the names of their post offices, *upazila*/*thana*/ward, and districts.

C. Age-specific literacy rates

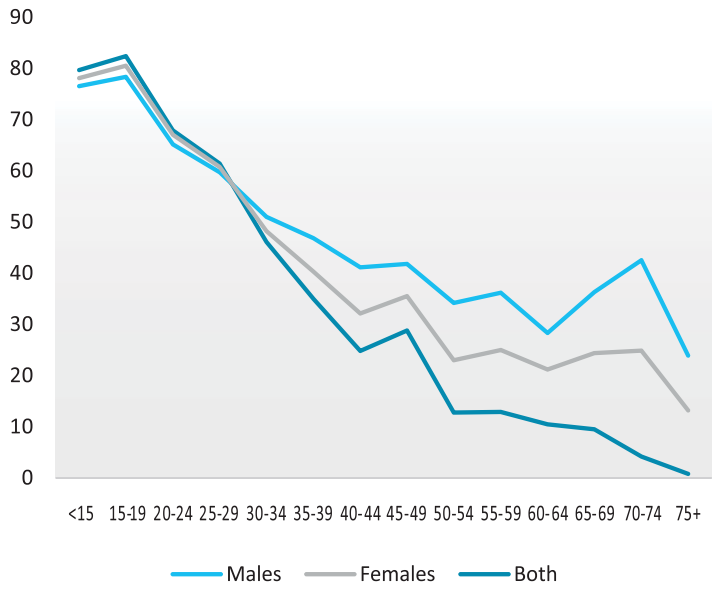
The positive impact of the renewed emphasis on education through the Education for All (EFA) movement was evident. The major beneficiaries of the EFA movement have been the younger population and girls. Literacy rate significantly varied by age-group (Figure 3.5), with younger groups doing better than the older groups. The rate was the highest among those aged 15-19 years (80.5%), followed by those aged 11-14 years (78.1%). The literacy rate then gradually decreased with the increase of age and reached 21.2% among those aged 75 years or more. Similar trend was observed in the age-specific literacy rates of males and females. Females in the first four age-groups (up to 29 years) were ahead of males of corresponding age groups in literacy attainment. However, the gender-gap favouring females narrowed with the increase of age. Gender-gap in a reverse direction was observed with the increase of age of respondents. The largest gender-gap was observed among those aged 70-74 years where males were 38.3 percentage points ahead

of females. Difference in literacy rate in each age-group is provided in Annex 3.8.

Literacy rate by broad age-groups showing gender-gap is provided in Table 3.6. Nearly 73% of the respondents of age 11-29 years were literate, which came down to 39.8% among those aged 30-49 years, 23.4% among those aged 50-69 years and 18.1% among those aged 70 years or more. Gender-gap was 1.5 percentage points for the first age-group where the females surpassed the males. Favouring males, the gap widen to 10.5 percentage points for the second age-group. It was 21.6 and 29.6 percentage points, respectively for the following two age-groups where males surpassed the females. Similar to the gender-gap, urban-rural gap in literacy rate persisted in each age-group (Annex 3.9). The urban respondents were ahead of their corresponding rural respondents in each age-group. Urban-rural gap in literacy rate favouring urban areas were evident irrespective of age of the respondents. Rural respondents of age 11-29 years were 5.2 percentage points behind their urban counterparts which increased to 12.9 percentage points among those aged 30-49 years, 12 percentage points among those aged 50-69 years and then decreased to one percentage point for those aged 70 years or more (Table 3.7).

Figure 3.5

Age-specific literacy rate by gender



Source: Education Watch National Literacy Test,2016

Table 3.6

Literacy rate by broad age-groups and gender

Age groups	Gender			Difference
	Male	Female	Both	(Females – Males)
11 – 29	71.9 (2,282)	73.4 (2,956)	72.7 (5,238)	1.5
30 – 49	45.6 (1,665)	35.0 (1,982)	39.8 (3,647)	-10.5
50 – 69	33.5 (1,032)	11.9 (898)	23.4 (1,930)	-21.6
70+	31.9 (256)	2.3 (209)	18.1 (465)	-29.6

Figures in the parentheses indicate number of individuals under test
Source: Education Watch National Literacy Test, 2016

Further exploration of literacy situation of the respondents aged 11-29 years is important because they are the direct beneficiaries of the intensified education efforts prompted by the EFA movement. These respondents were born during 1985-86 and later and were supposed to start primary education in 1990 or afterwards. Over 95% of the respondents of this group enrolled in school, 93.7% had at least one year of schooling, and 71.8% completed primary education. Such a positive profile of schooling has influenced their literacy status. It can be seen that the literacy rate of these younger respondents was much higher than for the respondents from older age-groups. Females of this group possessed a higher literacy rate than their male counterparts and urban-rural gap among them was also lower than for other age-groups.

Of the 11-29 years old respondents, 37.1% had *advanced* level literacy skills, 35.6% had *initial* level, and 10.8% were *semi-literate* and 16.5% *non-literate.* Component-wise, 81.4% of them had at least *initial* level of reading skills, and 67%, 61.8%, and 50.4%, respectively, had the same level of skills in reading, writing, numeracy and application of 3Rs. All these figures were much higher than the national averages for 11+ population.

Table 3.7
Literacy rate by broad age-groups and residence

Age groups	Residence			Difference
	Rural	Urban	Both	(Rural – Urban)
11 – 29	71.7 (4,051)	76.9 (1,187)	72.7 (5,238)	-5.2
30 – 49	37.3 (2,826)	50.2 (821)	39.8 (3,647)	-12.9
50 – 69	21.4 (1,560)	33.4 (370)	23.4 (1,930)	-12.0
70+	18.4 (382)	17.4 (83)	18.1 (465)	1.0

Figures in the parentheses indicate number of individuals under test
Source: Education Watch National Literacy Test, 2016

D. Education and literacy skills

Of the respondents under study, 22.8% were currently enrolled in any educational institutions, 53.6% were enrolled in educational institutions at some point in their life, whereas 23.6% never enrolled in any educational institution. All currently enrolled respondents belong to 11-29 years age-group; however, the respondents of other two groups were of any age from 11 to 105 years. Overall, 27.4% of the respondents did not complete even a year of schooling, 20.9% completed any of the first four grades of primary education, 23% completed any of the grades V-VII, 13.8% completed any of the grades VIII-IX, and 14.9% completed grade X or above. Note that, among the dropouts, 7.2% did not pass any grade and 31.5% passed any of the grades I-IV, i.e., they left school with incomplete primary education. This rate was only 17.5% among the currently enrolled respondents. On the other hand, proportion of currently enrolled respondents were higher than those dropped out in each education-group. Overall, educational qualification of currently enrolled respondents were higher than those who were not in educational institutions at the time of the literacy test.

A reflection of the above schooling status was observed in the literacy test results. Overall, 89.5% of the currently enrolled respondents was literate, which was 57.3% among those who enrolled in school but left those institutions with or without completing a certain level of education, and 0.4% among those never-schooled (Annex 3.10). Of the first group of respondents (currently enrolled), 35.3% had *initial* level of literacy skills and 54.2% had *advanced* level. These rates were 32 and 25.3%, respectively for the second group of respondents. The currently enrolled respondents performed much better than the out-of-school group in each of the four components of literacy (Annex 3.10). A similar result was observed when data were separately analysed by gender and area of residence (Annex 3.11).

A strong correlation between literacy status of respondents and years of schooling completed by them was observed (Table 3.8). Considering all respondents, it was observed that the literacy rate was 10.6% for those who passed grade II. A third of grade III completers, 43.5% of grade IV completers, over two-thirds of grade V completers, nearly 85% of grade VI completers, 91.8% of grade VIII completers, 98.4% of grade X completers, and 99.7% of those completing grade XII or more were literate ($p<0.001$). Among the currently enrolled respondents, 62.3% of grade III completers, two-thirds of grade IV completers, and 91% of grade V completers were literate. These rates were 24.5, 33.6, and 58.1%, respectively among those were not in any educational institutions at the time of the test. The substantial difference in literacy skills for those who completed a grade level in the past and those who are enrolled currently indicates that

those who do not continue in schooling to complete primary education and do not go further do not achieve a sustainable level of skills and at least those who drop out from early grades may lose their skills to relapse back into illiteracy (Table 3.8).

The literacy rate was 27.1% for those having 1-4 years of schooling, 77.8% for those having 5-7 years of schooling, 93% for those having 8-9 years of schooling, and 99% for those having 10 or more years of schooling (Table 3.9). Expectedly, the respondents' basic level of skills in each of the four components of literacy significantly increased with the increase of their level of education. With 10 or more years of schooling 99.5% of the respondents had reading skills, 96.9% had writing skills, 93.2% had numeracy skills, and 88.1% had skills in application of the 3R's. On the flip side, it also means that a third of test takers who completed five years of primary education could not attain literacy even at the initial level.

Table 3.8
Literacy rate by years of schooling completed and current enrolment status

Class passed	Enrolment status			Both
	Currently enrolled	Dropped out	Never enrolled	
Nil	-	0.7	0.4	0.4
I	7.4	2.2	-	2.5
II	41.5	7.9	-	10.6
III	62.3	24.5	-	32.4
IV	67.3	33.6	-	43.5
V	91.0	58.1	-	67.8
VI	90.2	79.7	-	84.9
VII	96.0	83.5	-	87.7
VIII	97.7	88.4	-	91.8
IX	97.8	92.5	-	94.0
X	99.1	97.8	-	98.4
XII+	100.0	99.6	-	99.7
All	89.5	57.3	0.4	51.3

Source: Education Watch National Literacy Test, 2016

An attempt was made to explore literacy rate of the respondents who once enrolled in school but were not in school at the time of test by years of schooling they completed and elapsed years after they left school (Table 3.10). Following are the observations.

Table 3.9
Percentage of population having skills in components of literacy by level of education

Level of education	Literacy components				Literacy
	Reading	Writing	Numeracy	Application	
Nil	1.5	0.3	0.8	0.3	0.4
I – IV	44.2	20.2	24.5	16.9	27.1
V – VII	91.4	67.5	61.0	48.5	77.8
VIII – IX	98.6	85.1	77.7	67.1	93.0
X+	99.5	96.9	93.2	88.1	99.0
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch National Literacy Test, 2016

- Literacy rate significantly increased with the increase of years of schooling irrespective of elapsed years since schooling.
- Statistically, no difference was observed for literacy rates by elapsed years since end of schooling for different educational levels of respondents.
- At least 80% literacy rate was maintained irrespective of elapsed years since schooling if the respondents had 6-7 years of schooling.

Similar analysis was done to explore acquisition of *advanced level* literacy skills (Table 3.11). Following are the observations.

- A very small proportion of respondents had *advanced level* of literacy skills if they completed five or less years of schooling. No statistically significant difference was observed in this in terms of elapsed years since the end of schooling of respondents.

- Statistically significant variation by elapsed years after schooling was observed for groups of respondents completing grade VI or more.
- Those who left school within the past 10 years were less likely to have advanced level literacy skills than those who left schools 11 or more years ago.
- About three-quarters of the respondents had *advanced level* of literacy skills if they possessed at least 10 years of schooling prior to the past decade.

Table 3.10

Literacy rate of respondents who once enrolled but not in school at time of test by years of schooling and elapsed years after leaving school

Education	Elapsed years after leaving school						All	Significance
	0 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26+		
Nil – I	0.0	0.0	2.0	0.0	0.0	1.7	1.2	ns
II – III	9.2	15.5	16.3	11.8	19.0	19.9	16.8	ns
IV – V	48.4	45.5	48.0	48.5	39.0	51.8	48.2	ns
VI – VII	82.1	82.5	82.4	79.3	85.9	83.9	82.4	ns
VIII – IX	87.0	89.2	95.2	93.3	89.2	89.6	90.8	ns
X+	98.7	99.3	98.8	97.7	100.0	98.2	98.6	ns
All	72.9	68.6	66.7	59.8	49.4	45.0	58.1	p<0.001
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	

Source: Education Watch National Literacy Test, 2016

Table 3.11

Advanced level literacy rate (score of 75% or more) of the respondents who once enrolled but were not in school at the time of test by years of schooling and elapsed years after schooling

Education	Elapsed years after leaving school						All	Significance
	0 - 5	6 - 10	11 - 15	16 - 20	21 - 25	26+		
Nil – I	0.0	0.0	0.0	0.0	0.0	0.4	0.3	ns
II – III	3.9	0.0	2.0	0.8	1.0	3.0	2.1	ns
IV – V	9.7	4.5	7.7	8.0	8.8	11.8	9.0	ns
VI – VII	19.0	23.1	32.4	27.3	29.2	33.6	26.9	p<0.05
VIII – IX	32.5	34.0	36.8	50.0	45.9	52.1	41.4	p<0.001
X+	68.3	64.8	76.4	76.9	90.0	78.2	74.4	p<0.001
All	32.6	26.0	29.3	27.7	24.9	21.0	25.9	p<0.001
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	

Source: Education Watch National Literacy Test, 2016

In summary, at least 6-7 years of schooling of quality prevailing currently in school was required to have at least initial level of literacy skills for 80% of the respondents. At least 10 years of schooling was required to have advanced level of literacy skills for two-thirds of the respondents.

E. Literacy rate by parental education and household economy

Literacy rate of the respondents significantly increased with the increase of their parental educational qualifications (Table 3.12). The rate was 37.1% if respondents' mothers had no education, it was 73% for those who had mothers with 1-4 years of schooling, 83.5% for those whose mothers had 5-9 years of

schooling, and 89.5% for those whose mothers had 10 or more years of schooling (p<0.001). The rates were 35.4, 70.9, 72.2, and 80.8%, respectively for respondents with fathers having nil, 1-4, 5-9 and 10+ years of schooling (p<0.001). Gender difference persisted irrespective of mothers' and fathers' education and each categories of fathers' education. Males outperformed the females in each case. On the other hand, residence-wise difference was observed in each category of mothers' education and three categories of fathers' education (except 1-4 years of schooling) (Annexes 3.12 and 3.13). Here too, urban respondents outperformed their rural counterparts in each category of parental education.

Table 3.12
Literacy rate of respondents by parental education and gender

Parental education	Gender		All	Level of significance
	Male	Female		
Mothers' education				
Nil	40.7 (3,078)	34.0 (3,437)	37.1 (6,515)	p<0.001
Classes I – IV	74.4 (718)	71.5 (764)	73.0 (1,482)	ns
Classes V – IX	84.9 (977)	82.4 (1,290)	83.5 (2,267)	ns
Classes X+	92.2 (166)	87.1 (174)	89.5 (340)	ns
Level of significance	p<0.001	p<0.001	p<0.001	
Fathers' education				
Nil	38.3 (2,629)	32.7 (2,876)	35.4 (5,506)	p<0.001
Classes I – IV	73.8 (678)	68.0 (677)	70.9 (1,355)	p<0.05
Classes V – IX	74.7 (1,096)	70.1 (1,289)	72.2 (2,385)	p<0.05
Classes X+	85.7 (512)	77.3 (717)	80.8 (1,229)	p<0.001
Level of significance	p<0.001	p<0.001	p<0.001	

Figures in the parentheses indicate number of individuals under test
Source: Education Watch National Literacy Test, 2016

Component-wise analyses of literacy skills show statistically significant improvement in the performance of each skill area with increase in parental education (Annexes 3.14 and 3.15). Among the respondents who had mothers with 10 or more years of schooling, 93.2% had reading skills, 87.7% had writing skills, 80.2% had numeracy schools, and 76.6% had skills in application of the 3R's. These rates were 45.7, 32, 31.7 and 26.1% respectively if their mothers had no schooling. A similar result was observed in terms of fathers' education too. If the fathers had no schooling, 43.9% of the respondents had reading skills, 30.3% had writing skills, 29.9% had numeracy skills, and 24.2% had skills in 3Rs. These figures gradually increased with the increase of fathers' educational qualifications and reached 86, 76.2, 72.4, and 66.4% respectively for those who had fathers with 10 or more years of schooling.

Literacy rate of the respondents signi-ficantly increased with the increase of their households' food security status (Table 3.13). For instance, the rate was 44% if the households' food security status was 'always in deficit', it was 40.8% for those who belongs to 'sometimes in deficit' households,

Table 3.13
Literacy rate of respondents by yearly food security status of households and gender

HH food security status	Gender		All	Level of significance
	Male	Female		
Always in deficit	47.8 (236)	41.3 (297)	44.0 (533)	ns
Sometimes in deficit	43.2 (1131)	38.7 (1279)	40.8 (2410)	p<0.05
Breakeven	51.6 (1949)	46.5 (2191)	48.9(4140)	p<0.001
Surplus	63.5 (1919)	57.8 (2278)	60.4 (4197)	p<0.001
Level of significance	p<0.001	p<0.001	p<0.001	

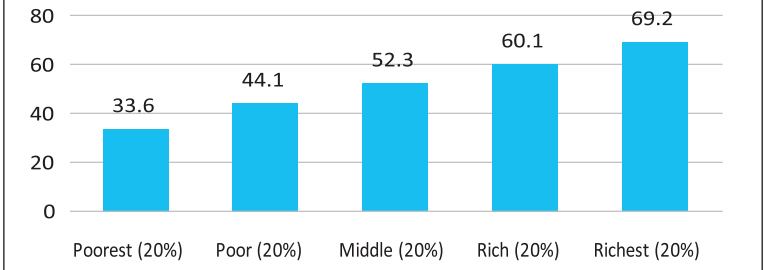
Figures in the parentheses indicate number of individuals under test
Source: Education Watch National Literacy Test, 2016

48.9% for those who belong to the 'breakeven' category, and 60.4% for those who belong to 'surplus' households. No gender or residence-wise difference was observed in 'always in deficit' households; however, both the gaps increased with the increase of food security status (Table 3.13 and Annex 3.16). Decrease of literacy rate in the 'sometimes in deficit' households compared to 'always in deficit' households was not only observed at the aggregated level or by gender and residence status (urban and rural).

Initial level of skills in each of the four components of literacy significantly increased with the increase of their household food security status (Annex 3.17). Among the respondents belonging to 'always in deficit' households, 52% had initial level of reading skills, 37.3% had the same level of writing skills, 38.1% had numeracy skills, and 29.6% had skills in application of 3Rs. With a 'surplus' household food security status, 67% or the respondents had reading skills, 54.5% had writing skills, 52.2% had numeracy skills, and 45.5% had skills in application of the 3Rs.

Figure 3.6

Literacy rate by household wealth quintiles



Source: Education Watch National Literacy Test, 2016

Information on 19 various types of household wealth/assets was collected. Adding those information a range of 0-19 was found. The households were then divided in terms of quintiles of the distribution of wealth/assets. These categories were called the poorest (lowest 20%), poor (20%), middle (20%), rich (20%), and richest (highest 20%). Figure 3.6 shows statistically significant increase in literacy rate with the increase in household wealth ranking. The literacy rate was 33.6% among the members of the poorest households, 44.1% among those in poor households, 52.3% among those in middle wealth households, 60.1% among those in rich households, and 69.2% among those in the richest households. Separate analysis for the respondents of each gender and area of residence also found a similar result (Annex 3.18). In the poorest households, the literacy rate was 34.7% among males and 32.7% among females, and 33.5% among rural and 34.1% among urban respondents. These figures in the richest households were 73.4, 65.2, 67.1, and 78.2%, respectively. Significant increase in respect of each skill component is also observed (Annex 3.19).

F. Literacy skills of various sub-groups of population

Small ethnic groups

As expected, the ethnic identity of majority of the respondents was Bangali. Small ethnic groups collectively comprised 3.6% of the sample respondents. Table 3.14 shows that the literacy rate of the respondents of small ethnic groups was significantly lower than that of the Bangalis (38.2% versus 51.7%; $p<0.001$). Males were ahead of females in both Bangalis and the small ethnic groups. However, the gender-gap was much wider among the small ethnic groups – 51% of males and 25.4% of females were literate ($p<0.001$). Although no difference was observed among the males of both the groups, the Bangali females significantly surpassed the females of small ethnic groups in literacy attainment. Fifty-seven percent of the respondents of small ethnic groups were *non-literate*, 4.7% *semi-literate*, 18% *literate at initial level*, and 20.3% *literate at advanced level*. Forty percent of the respondents of small ethnic groups had at least initial level of reading skills, 34% had writing skills, 35.5% had numeracy skills, and 32.2% had application skills. All these figures

for the Bangalis were mostly identical to the national estimates.

Religion and literacy

A vast majority of the respondents were Muslims. The proportion of non-Muslims was 12.6% which includes Hindus, Buddhists, Christians, and believers of other religions. No statistical difference was observed between the literacy rates of Muslims and non-Muslims (50.9% versus 53.6%; Table 3.15). Males were significantly ahead of females in both religious groups. Whereas, gender-gap was 3.9 percentage points among the Muslims, it was 12.6 percentage points among the non-Muslims. Religion-wise, no variation was found in the literacy rates of females, but the non-Muslim males were significantly ahead of the Muslim males in this regard. Nearly 39% of the Muslims were *non-literate*, 10.1% *semi-literate*, 25.3% *literate at initial level*, and 25.6% *literate at advanced level*. These rates were 39.1, 7.3, 24.8, and 28.7%, respectively for the non-Muslims. Both Muslims and non-Muslims performed equally in reading and writing skills, but the non-Muslims significantly surpassed the Muslims in the other two skills.

Table 3.14
Literacy rate of respondents by ethnicity and gender

Ethnicity	Gender		Both	Level of significance
	Male	Female		
Bangali	54.1 (5,072)	49.8 (5,884)	51.7 (10,956)	p<0.001
Small ethnic groups	51.0 (163)	25.4 (161)	38.2 (324)	p<0.001
All	54.0 (5,235)	49.0 (6,045)	51.3 (11,280)	p<0.001
Level of significance	ns	p<0.001	p<0.001	

Figures in the parentheses indicate number of individuals under test
Source: Education Watch National Literacy Test, 2016

Table 3.15
Literacy rate of respondents by religion and gender

Ethnicity	Gender		Both	Level of significance
	Male	Female		
Muslim	53.0 (4,570)	49.1 (5,313)	50.9 (9,883)	p<0.001
Non-Muslim	60.2 (665)	47.6 (732)	53.6 (1,397)	p<0.001
All	54.0 (5,235)	49.0 (6,045)	51.3 (11,280)	p<0.001
Level of significance	p<0.001	ns	ns	

Figures in the parentheses indicate number of individuals under test
Source: Education Watch National Literacy Test (2016)

Literacy of household heads

On average 15.1% of the household heads were females. Whether male or female, two-fifths of the heads of the households were literate. No gender difference was observed in this – nor at aggregated level or by residences (urban/rural). Heads of urban households were ahead of their rural counterparts with a significant difference of 11.4 percentage points. The rates were 49.4 and 38%, respectively (Table 3.16). Urban-rural variation was observed among the male heads of households. Half of the male heads of households in urban areas and 38% of those in rural areas were literate.

Table 3.16
Literacy rate of household heads by residence and gender

Residence	Gender		Both	Level of significance
	Male	Female		
Rural	38.0 (2,277)	38.2 (388)	38.0 (2,665)	ns
Urban	50.2 (619)	45.4 (128)	49.4 (747)	ns
All	40.2 (2,896)	39.7 (516)	40.1 (3,412)	ns
Level of significance	p<0.001	ns	p<0.001	

Figures in the parentheses indicate number of individuals under test
Source: Education Watch National Literacy Test, 2016

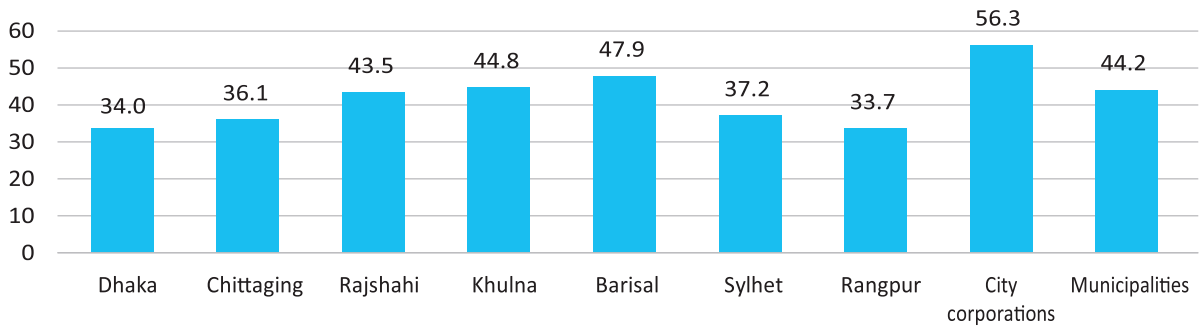
(p<0.001). Of the household heads, 50.7% were *non-literate*, 9.1% *semi-literate*, 18.8% *literate at initial level*, and 21.4% *literate at advanced level* (Annex 3.20).

Among the male household heads 17.3% had *initial* level of literacy skills and 22.9% had *advanced* level; these were 26.7 and 13%, respectively for the female heads of households (Annex 3.20). Although an equal proportion of household heads in rural areas had *initial* and *advanced* level of literacy, about a fifth of urban heads had *initial* level and 30% had *advanced* level literacy skills (Annex 3.20). Percentage distribution of household heads of each stratum by literacy levels is provided in Annex 3.21.

City corporations were much ahead in this regard compared to the other strata (Figure 3.7). Over 56% of the household heads in the city corporations were literate. Heads of 47.9% of the households in rural Barisal division, 44.8% of those in rural Khulna division, 44.2% of those in the municipalities, 43.5% of those in rural Rajshahi division, 37.2% of those in rural Sylhet division, 36.1% of those in rural Chittagong division, 34% of those in rural Dhaka division, and 33.7% of those in rural Rangpur division were literate.

Figure 3.7

Literacy rate of household heads by strata



Source: Education Watch National Literacy Test, 2016

Let us take a look at the literacy rate of the members of the male and female headed households. Table 3.17 reveals that members of the female headed households were more likely to be literate than those in the male headed households (56.2% versus 50.5%; p<0.001). Gender difference persisted in both types of households. Males were ahead of females in both. In the male headed households, 52.8% of the male members and 48.3% of the female members were literate. In the female headed households, 67.1% of male members and 52% of female members were literate. Equal literacy rate was observed between the male members of male headed and female members of female headed households. Literacy rate of the male members of female headed households was 18.8 percentage points ahead of the literacy rate of female members of male headed households – the rates were 67.1 and 48.3%, respectively (p<0.001). Residence-wise analysis shows that whether it is male or female headed household, members

Table 3.17

Literacy rate of respondents by gender of household head andgender of respondent

Gender of household heads	Gender of respondents		Both	Level of significance
	Male	Female		
Male	52.8	48.3	50.5	p<0.001
Female	67.1	52.0	56.2	p<0.001
All	54.0	49.0	51.3	p<0.001
Level of significance	p<0.01	p<0.01	p<0.001	

Source: Education Watch National Literacy Test, 2016

of urban households were significantly ahead of those of rural households (Annex 3.22).

Adult literacy rate

Adult literacy rate is calculated for those aged 15 years or over. Among the adults in the sample, 43.3% were *non-literate*, 9.6% *semi-literate*, 22.5% *literate at initial level*, and 24.7% *literate at advanced level* (Annex 3.23) Therefore, the adult literacy rate stands at 47.2% – over four percentage points lower than the literacy rate of respondents aged 11 years and above. Table 3.18 shows that the adult literacy rate was 50.2% among males and 44.7% among females (p<0.001). It was 45.1% among rural respondents and 56.3% among urban respondents (p<0.001). Gender difference in adult literacy rate was observed in both rural and urban areas. Males outperformed females in both the areas.

Table 3.18

Adult (15 years and above) literacy rate by strata and gender

Strata	Gender			Level of significance
	Male	Female	Both	
Rural Dhaka Division	43.7	43.3	43.5	ns
Rural Chittagong Division	45.9	37.4	41.1	p<0.01
Rural Rajshahi Division	53.3	47.0	50.0	p<0.05
Rural Khulna Division	52.3	46.0	49.0	p<0.05
Rural Barisal Division	54.6	52.3	53.3	ns
Rural Sylhet Division	48.8	40.0	44.0	p<0.01
Rural Rangpur Division	47.5	38.5	42.8	p<0.01
City corporations	62.8	59.2	60.9	ns
Municipalities	56.8	50.0	53.0	p<0.05
Level of significance	p<0.001	p<0.001	p<0.001	
Rural Bangladesh	48.0	42.6	45.1	p<0.001
Urban Bangladesh	59.4	53.7	56.3	p<0.01
Level of significance	p<0.001	p<0.001	p<0.001	
All Bangladesh	50.2	44.7	47.2	p<0.001

Source: Education Watch National Literacy Test, 2016

As with literacy rate of 11 years and above, no gender difference was observed in the adult literacy rate in rural Dhaka and Barisal divisions and in the city corporations (Table 3.18). Similarly, gender difference in adult literacy rate was found in rural Chittagong, Sylhet, and Rangpur divisions and the municipalities. In addition, gender difference in adult literacy rate was observed in rural Rajshahi and Khulna divisions which was not the case in literacy rate of the respondents 11 years and above.

Component-wise analysis shows that adult males did significantly better than adult females in each of the four areas of assessment (Annex 3.24). Gender-gap was the largest in application of the 3R's (13.5 percentage points), followed by numeracy (10.2 percentage points), reading (6.1 percentage points) and writing (2.1 percentage points), respectively. Performance of urban adults was much higher in each of the four components of literacy compared to their counterparts in rural areas (Annex 3.25). The highest difference was observed in writing skills (13.3 percentage points), followed by reading skills (11 percentage points), numeracy skills (10.6 percentage points) and application of the 3R's (10.4 percentage points), respectively.

Youth literacy rate

Following the United Nations and the World Bank practice, respondents aged 15-24 years were considered as youth. This definition is also consistent with that used in the latest *Education Watch* study (Nath, Chowdhury and Ahmed 2015). The large majority of youth was found to be literate. Those with *advanced* level literacy skills constituted 42.7% of total youth respondents (Annex 3.26). About a third of the youth had *initial* level of skills. Totalling both categories, it can be seen that three-quarters of youth in the sample were literate. Of the youth taking the literacy test, 10.2% were at the *semi-literate* level and 14.9% were *non-literate*.

It was interesting to observe that no statistically significant gender difference in youth literacy rate was found – neither in rural nor in urban areas or at the national level (Table 3.19). At the national level, 73.9% of males and 75.7% of females were literate. In rural areas, 72.1% of males and 75% of females were literate and in urban areas 81.5% of males and 78.5% of females were literate. Urban-rural difference in youth literacy rate was statistically significant (79.9% versus 73.8%; p<0.01). Although statistically no difference was observed between the literacy rates of female youth of rural and urban areas, the urban males were significantly ahead of their rural counterparts (p<0.01).

Table 3.19

Youth (15–24 years) literacy rate by residence and gender

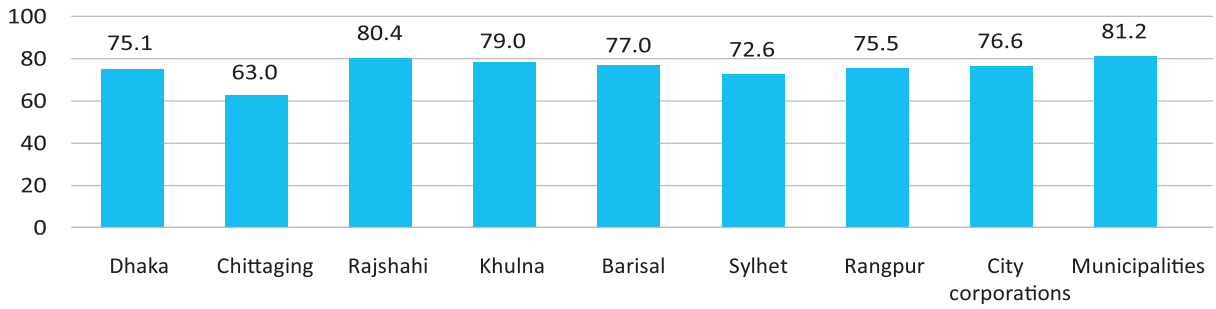
Residence	Gender			Level of significance
	Male	Female	Both	
Rural Bangladesh	72.1	75.0	73.8	ns
Urban Bangladesh	81.5	78.5	79.7	ns
Level of significance	p<0.01	ns	p<0.01	
All Bangladesh	73.9	75.7	75.0	ns

Source: Education Watch National Literacy Test, 2016

Municipalities and the rural Rajshahi division were the two top strata in terms of youth literacy rate (Figure 3.8). Over 80% of youth of these two areas were literate. Youth of the rural Khulna division was also close to them with 79% literacy rate. The other strata which attained a literacy rate higher than the national youth literacy rate are: rural Barisal division (77%), city corporations (76.6%), rural Rangpur division (75.5%), and rural Dhaka division (75.1%). Youth of the rural Chittagong division had the lowest literacy rate of 63%. Rural Sylhet division was the second from the bottom with 72.6% literacy rate. Except rural Dhaka division, gender difference was not observed in any of the strata (Annex 3.27). In Dhaka, female youth significantly

Figure 3.8

Youth (15-24 years) literacy rate by strata



Source: Education Watch National Literacy Test, 2016

surpassed their male counterparts. The difference between the highest and the lowest performing stratum was 18.7 percentage points.

Of the four components of literacy, youth performed best in reading and least in application of the 3R's (Annex 3.28). In reading, 83.4% of youth had at least *initial* level of skills which was 55.5% in the case of application of 3Rs. Therefore, the gap in performance for the highest and the lowest components was 27.9 percentage points. As to the other components, 69.4% of the youth had writing skills and 64.5% had numeracy skills.

Gender difference persisted in each of the skill components among youth; however, it was not seen in literacy rate at the aggregated level (Annex 3.28). Interestingly, the direction of difference was not similar in each. The female youth significantly outperformed their male counterparts in reading and writing components. On the other hand, the male youth significantly surpassed their female counterparts in numeracy and application of the 3R's. Residence-wise analysis shows urban youth outperforming their rural counterparts in each of the four components of literacy (Annex 3.29). The difference was larger in writing and application of the 3R's than that in reading or numeracy.

Literacy of elderly people

Respondents aged 60 years and above were considered as elderly. Only a fifth of them could cross the cut-off point for minimum level of literacy. Of the elderly respondents in the sample, 11.3% had *advanced* level of literacy skills and 9.4% had *initial* level of skills (Annex 3.30). Over 73% of the elderly were categorised as *non-literate*. Sixty-one percent of males, 88.5% of females, 74.6% of rural elderly and 65.4% of urban elderly also fell in the *non-literate* category.

Table 3.20
Literacy rate of elderly respondents (60 years and above) by residence and gender

Residence	Gender		Both	Level of significance
	Male	Female		
Rural	29.6 (577)	6.2 (427)	19.5 (1,004)	p<0.001
Urban	41.7 (122)	10.0 (107)	27.0 (229)	p<0.001
All	31.5 (699)	6.8 (534)	20.7 (1,233)	p<0.001
Level of significance	p<0.01	ns	p<0.01	

Figures in the parentheses indicate number of individuals under test
Source: Education Watch National Literacy Test, 2016

Statistically significant gender and residence-wise variation persisted in literacy rate of elderly respondents (Table 3.20). The literacy rate was 31.5% among males and 6.8% among females (p<0.001). It was 19.5% among rural elderly and 27% among urban elderly (p<0.01). Gender difference was noticed in both rural and urban areas. Note that only 6.2% of the female elderly respondents of rural areas were literate. On the other hand, it was 41.7% among male elderly respondents in urban areas.

As expected, a wide stratum-wise variation was observed in literacy rate of elderly (Annex 3.31). Municipalities and the rural Barisal division had two top scorers in this respect recording a rate of about 30% literacy. Rural Khulna, Rajshahi, and Rangpur divisions and the city corporations also had elderly literacy rates higher than the national average. Three rural divisions viz., Chittagong, Sylhet and Dhaka performed poorly in this regard.

Literate households

A household is considered literate if there is at least one literate member in it (Basu and Foster 1998, Basu *et al.* 2000). Overall, no literate member was found in a fifth of the households under study, three-fifths of the households had at least one literate member, and all members were literate in a fifth of

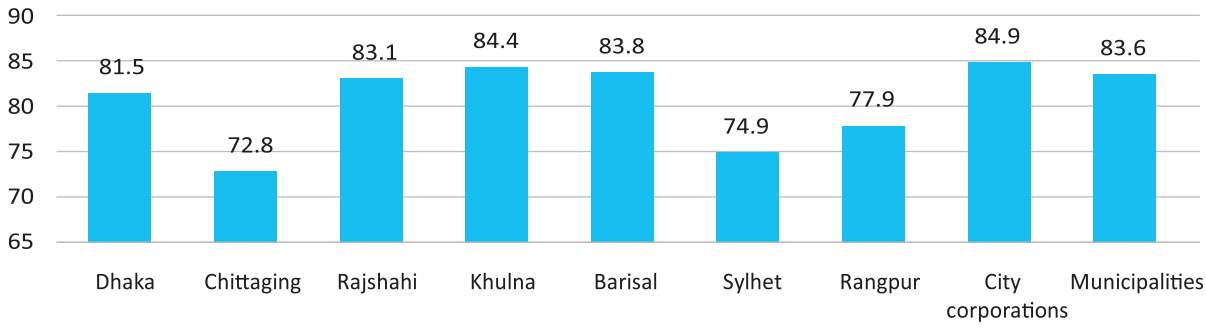
Table 3.21
Percentage distribution of households by literacy status of its members and residence

Literacy status of HHs	Residence		All	Level of Significance
	Rural	Urban		
No literate member	20.4	15.9	19.5	p<0.01
A section literate	62.2	53.5	60.5	
All literate members	17.4	30.6	19.9	
All	100.0	100.0	100.0	

Source: Education Watch National Literacy Test, 2016

Figure 3.9

Percentage of literate households by strata



Source: Education Watch National Literacy Test, 2016

the households (Table 3.21). Therefore, 80.5% of the households under study had at least one literate person. The proportions of households with at least one member literate were 79.6% in rural areas and 84.1% in urban areas ($p<0.001$).

Stratum-wise statistically significant variation was observed in respect to proportion of 'litertae households' (Figure 3.9 and Annex 3.32). The highest proportion of literate households was found in the city corporations (84.9%) and lowest in rural Chittagong division (72.8%). The former was 12.1 percentage points ahead of the later. More than 80% of the households with at least one literate member was found in two urban and four rural strata. These are city corporations, municipalities, and rural Khulna, Barisal, Rajshahi and Dhaka divisions. Among others 78% of the households in rural Rangpur and 75% in rural Sylhet division had at least one literate person.

All household members were literate in 17.4% of rural and 30.6% of urban households ($p<0.001$). These households can be called 'fully literate'. The proportion of 'fully literate' households was highest in the city corporations (39.5%), followed by rural Barisal division (28.2%), municipalities (24.1%), and Rural Rajshahi division (23.1%). Low proportions of such households was observed in four rural divisions. These are Sylhet, Chittagong, Dhaka, and Rangpur. Proportions of 'fully literate' households was 13-15% in these strata (Annex 3.32).

G. Multivariate analysis of literacy

A multivariate logistic regression model was developed in order to find out the predictive factors for literacy of the respondents aged 11 years and above. Such an analysis would help understanding the predictive power of various background characteristics of the respondents in explaining their literacy status. The dependent variable was the literacy status measured dichotomously, viz., literate and not-literate. Ten explanatory variables were considered; measurement of which is provided in Annex 3.33. Some of these variables are continuous and some are categorical. The categorical variables are gender, residence, ethnicity, religion, and gender and literacy status of household heads. The continuous variables are age and education of respondents, mothers' education, and household wealth.

A stepwise approach was followed in building the model – the variables appeared in the model through forward selection and backward elimination. Therefore, only those variables which have statistically significant contribution in explaining variability in literacy status of respondents (at $p<0.05$ level) were

included in the final model (Table 3.22). It seems that seven of the above 10 variables appeared in the final model. These, in terms of chronology of appearance in the model, are years of education of respondents, literacy status of household heads, age of respondents, gender of respondents, household wealth, mothers' education, and religion. Chronology of appearance indicates importance of variables in 'explaining' literacy status. An early appearance means a higher degree of association of the factor with literacy status than of others. It should be noted that these seven characteristics collectively 'explained' about 60% of the variation in literacy (as found using Cox & Snell R^2). It would be appropriate to note that 'explanation' in this statistical exercise is more an association between the factors and the literacy status of respondents rather than a causative relationship.

Table 3.22
Logistic regression model predicting literacy status of respondents

Explanatory variables	Regression coefficient	Odds ratio	95% CI of odds ratio	Level of significance
Age	-0.045	0.956	0.951–0.961	p<0.001
Education	0.752	2.120	2.046–2.197	p<0.001
Gender: male	0.673	1.960	1.692–0.271	p<0.001
Religion: non-Muslim	0.282	1.325	1.049–1.674	p<0.05
Mothers' education	0.044	1.045	1.015–1.076	p<0.01
Household wealth	0.079	1.083	1.043–1.124	p<0.001
HHH: literate	1.779	5.922	4.985–7.034	p<0.001
Constant	-3.444	0.032		p<0.001
-2 Log Likelihood	4897.165			
Cox & Snell R^2	0.597			
Nagelkerke R^2	0.796			

Source: Education Watch National Literacy Test, 2016

Findings reveal that literacy rates decreased with the increase of age of the respondents. However, it increased with the increase of years of schooling completed by the respondents, mothers' education, and household wealth. Having a literate head in the household significantly improved the literacy status of respondents. Males and non-Muslims were more likely to be literate than their respective counterpart females and Muslims. No contribution of ethnicity, gender of household head, and residence was observed in literacy status of the respondents when the effects of other variables were controlled.

The EFA generation

Another regression model was built for the respondents of what is called the EFA generation (aged 11-29 years, who were beneficiaries of the surge of education activities arising from the EFA movement) with the same dependent and explanatory variables

Table 3.23
Logistic regression model predicting literacy status of respondents of the EFA generation (aged 11-29 years)

Explanatory variables	Regression coefficient	Odds ratio	95% CI of odds ratio	Level of significance
Age	-0.108	0.898	0.882–0.912	p<0.001
Education	0.777	2.174	2.06–2.292	p<0.001
Gender: male	0.404	1.498	1.235–1.817	p<0.001
Area: urban	0.379	1.462	1.126–1.896	p<0.01
Ethnicity: SEG	0.890	2.436	1.346–4.410	p<0.01
Mothers' education	0.058	1.059	1.021–1.099	p<0.01
Household wealth	0.098	1.102	1.050–1.158	p<0.001
HHH: literate	0.836	2.307	1.843–2.887	p<0.001
Constant	-2.303			p<0.001
-2 Log Likelihood	2851.461			
Cox & Snell R^2	0.437			
Nagelkerke R^2	0.637			

Source: Education Watch National Literacy Test, 2016

as presented above. The purpose of this analysis was to see whether they vary in terms of their predictive value. Some variations were observed between the two models. These are as follows:

1. Whereas seven explanatory variables appeared in the earlier model, eight variables appeared in this model.

2. Religion was the seventh important variable in predicting literacy of the total population, but this variable was not found important for predicting literacy of the 11-29 years olds. Instead, ethnicity and area of residence came out as the seventh and the eighth important variables in predicting literacy of the EFA generation. Urban respondents and the small ethnic groups were more likely to show a better literacy status.

3. The other six variables were common in both the models and their direction of influence in literacy outcome was similar in both. Educational qualifications of the respondents and their mothers' education were respectively the first and the sixth variables in both the models. Whereas literacy status of household head and age of the respondents were the second and the third important variables for the total population, it was the other way around in the EFA generation model. Similarly, gender of the respondent and household wealth were the fourth and the fifth important variables in the first model, these were the opposite in the second model.

4. Although the second model was built with more explanatory variables than the first model, the second model explained a lesser proportion of variation in literacy than the first model.

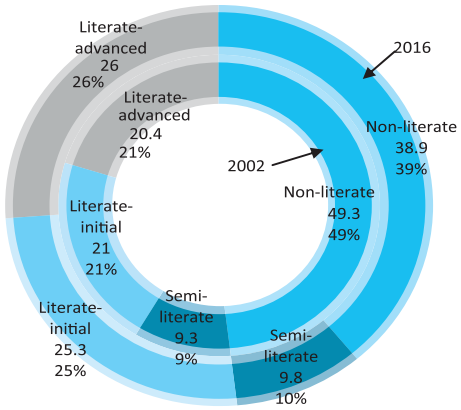
H. Changes in literacy situation since 2002

Changes in literacy situation has been explored over a period of 14 years – from 2002 to 2016. A comparison was undertaken of estimates for various indicators from the *Education Watch National Literacy Assessment* in 2002 and the results found in the latest assessment in 2016. In 2002, 49.3% of the respondents were *non-literate*, 9.3% *semi-literate*, 21% literate at *initial* level, and 20.4% literate at *advanced* level (Figure 3.10). Over a period of 14 years, the proportion of *non-literate* population decreased by 10.4 percentage points. The proportion of *semi-literate* population, however, increased by 0.5 percentage points, the proportion of *initial* level literate population increased by 4.3 percentage points, and the proportion of *advanced* level literate population increased by 5.6 percentage points. On the whole, the literacy rate increased by 9.9 percentage points and reached 51.3% in 2016 for the 11+ population (Figure 3.11). Although such an improvement was statistically significant, but it has to be noted that this progress occurred over a period of 14 years – an increase of less than one percentage point per year.

The size of the population of Bangladesh aged 11 years and above has increased by 40% during 2002-2016. As a result,

Figure 3.10

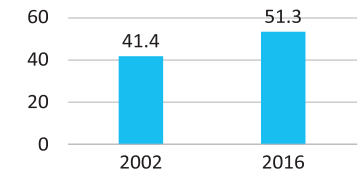
Percentage distribution of respondents by literacy levels over time



Source: Education Watch National Literacy Test, 2016

Figure 3.11

Change in literacy rate over 14 years, 2002-16



Source: Education Watch National Literacy Test, 2016

population in each category of literacy has also increased. It was observed that over a period of 14 years, *non-literate* population increased by 5.1 million, *semi-literate* population increased by 4.2 million, and population with literacy at *initial* and *advanced* levels increased by 13.5 and 15 million, respectively (Table 3.22). Therefore, over this period, literate people (of 11+ age) increased by 28.5 million, whereas the total population of this age increased by 37.8 million in the country. In other words, on average, two million literates were added every year against 2.7 million increase in the population – a deficit of 0.7 million every year. In 2002, Bangladesh had a literate population of 38.4 million which increased to 66.9 million in 2016. According to the latest assessment, 50.9 million Bangladeshis of 11+ age were *non-literate* and 12.8 million *semi-literate*.

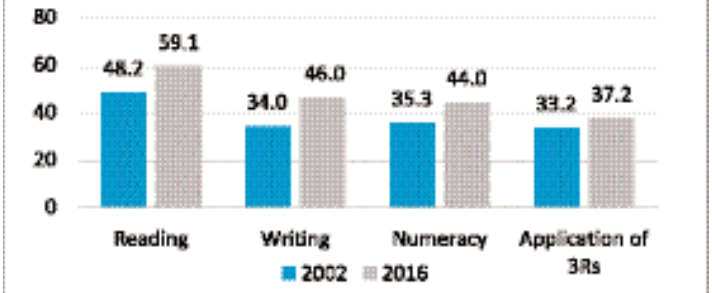
Table 3.24
Population of Bangladesh at various levels of literacy by year (in million)

Literacy levels	Year		Increase
	2002	2016	
Non-literate	45.8	50.9	5.1
Semi-literate	8.6	12.8	4.2
Literate initial	19.5	33.0	13.5
Literate-advanced	18.9	33.9	15.0
Total	92.8	130.6	37.8

Source: Education Watch National Literacy Test (2002, 2016)

Statistically significant increase was observed in each of the four components of literacy (Figure 3.12). At least an initial level of skills improved from 48.2% in 2002 to 59.1% in 2016 in reading; it increased from 34% in 2002 to 46% in 2016 in writing; 35.3 to 44% in numeracy; and 33.2 to 37.2% in application of 3Rs. Therefore, the improvement over a period of 14 years was 10.9 percentage points in reading, 12 percentage points in writing, 8.7 percentage points in numeracy, and four percentage points in application of 3Rs.

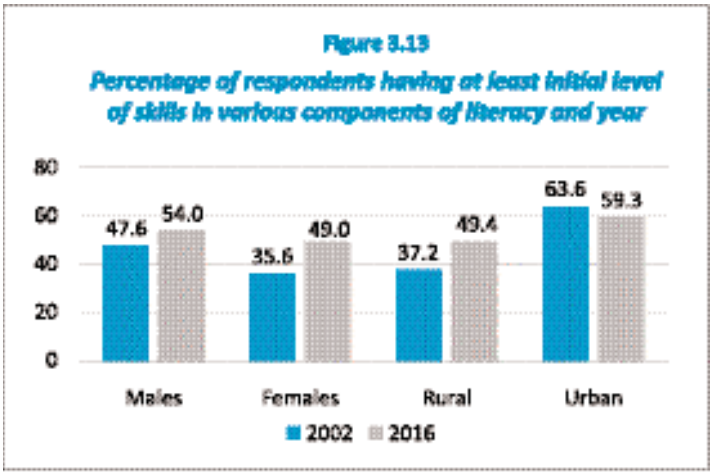
Figure 3.12
Percentage of respondents having at least initial level of skills in various components of literacy and year



Source: Education Watch National Literacy Test (2002, 2016)

Literacy rate of both male and female significantly increased over time (Figure 3.13). An increase of 6.4 percentage points was recorded for males (from 47.6 in 2002 to 54% in 2016) but the increase was much higher for females - 13.6 percentage points (from 35.6% in 2002 to 49% in 2016). On the other hand, although the rate increased in rural areas, it decreased in urban areas, which presents a new issue. An increase of 12.2 percentage points was recorded in rural areas (from 37.2% in 2002 to 49.4% in 2016), but it decreased four percentage points in urban areas (63.6% in 2002 to 59.3% in 2016).

Figure 3.13
Percentage of respondents having at least initial level of skills in various components of literacy and year

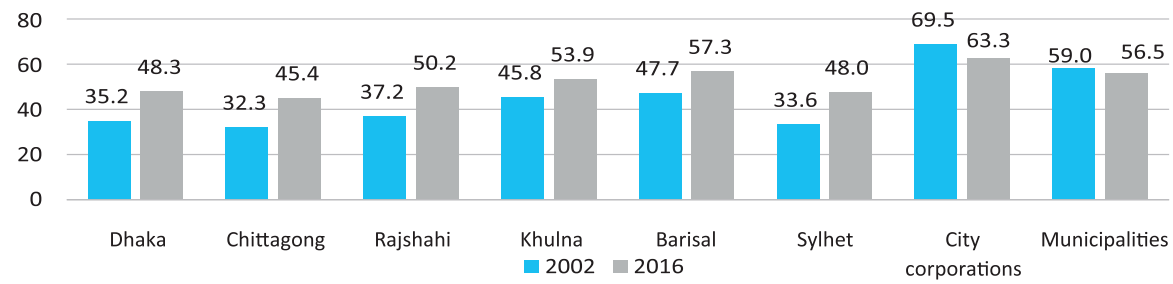


Source: Education Watch National Literacy Test (2002, 2016)

Stratum-wise changes in literacy rate is provided in Figure 3.14. In 2002, Rajshahi and Rangpur divisions were under one division called Rajshahi division. All other

Figure 3.14

Literacy rate by stratum and year



Source: Education Watch National Literacy Test (2002, 2016)

strata were similar in both the assessment years. Thus, a pooled estimate of Rajshahi and Rangpur divisions was used for comparison purpose. Statistically significant improvement in literacy rate was observed in all six rural divisions (p<0.001). On the other hand, the literacy rate significantly decreased in both the urban strata. Females performed equally in 2002 and 2016 in both the urban strata; however, in each, performance of the males significantly decreased. Therefore, it can be said that males were responsible for decrease in urban literacy rates. In 2002, males were significantly ahead of females in each of the strata, but after 14 years no such difference was observed in rural Dhaka, Khulna, and Barisal divisions, and the city corporations.

Improvement in literacy rate was also evident for various sub-groups of respondents (Table 3.23). The literacy rate improved for both Muslims and non-Muslims. A greater improvement was evident among the Muslims than for the non-Muslims, and therefore, the Muslim-non-Muslim gap decreased over time. Literacy rate also improved among the heads of the households,

Table 3.25

Changes in literacy rate by subgroups of population, 2002-16

Sub-groups of population	Year		Level of significance
	2002	2016	
Religion			
Muslim	40.2	50.9	p<0.001
Non-Muslim	47.8	53.6	p<0.001
Household head	34.5	40.1	p<0.001
Gender of HHH			
Male	35.7	40.2	p<0.001
Female	24.4	39.7	p<0.001
Adult literacy	38.8	47.2	p<0.001
Youth literacy	58.7	75.0	p<0.001
Elderly literacy	19.3	20.7	ns
Literate household	61.9	80.5	p<0.001

Source: Education Watch National Literacy Test (2002, 2016)

Table 3.26

Literacy rate of population aged 11-29 years by gender, residence and year

Gender/residence	Year		Increase	Level of significance
	2002	2016		
Gender				
Male	58.7	71.9	13.2	p<0.001
Female	49.9	73.4	23.5	p<0.001
Significance	p<0.001	ns		
Residence				
Rural	50.1	71.7	21.6	p<0.001
Urban	73.4	76.9	3.5	p<0.001
Significance	p<0.001	p<0.001		
All	53.9	72.7	18.8	p<0.001

Source: Education Watch National Literacy Test (2002, 2016)

separately for both males and females. Whereas, literacy rate of the male heads of the households increased 4.5 percentage points, it was 15.3 percentage points for the female heads. Statistically significant improvement was also evident in adult and youth literacy rates. Improvement was greater among the youth than the adults. The literacy rate was found static among the elderly population. Huge improvement was observed in the proportion of literate households – from about 62% in 2002 to 80.5% in 2016, primarily because of the addition of younger literates.

The population aged 11-29 years, who lived through the EFA movement for the past 25 years, gained hugely in literacy skills over the period. Note that a smaller section of the respondents aged 11-29 years in 2002 went through the EFA movement. The literacy rate of these respondents was about 54% in 2002 which increased to 72.7% in 2016 – an increase of 18.8 percentage points. The average yearly increase was 1.34 percentage points – almost double of the rate for all population aged 11 years and above. Significant improvement also was noticed separately for males and females and for urban and rural respondents. However, the rate increase was higher among females than for males and among rural people than for those in urban areas.

I. Salient findings

- Of the total respondents of age 11 years and above, 26% were found to be literate at *advanced* level, 25.3% at *initial* level, 9.8% *semi-literate*, and 39% *non-literate*. Based on the premise that the first two groups satisfy the basic minimum standards for literacy, it shows that 51.3% of the respondents were literate. It was 54% for males and 49% for females ($p<0.001$); 49.4% among rural respondents and 59.3% among urban respondents ($p<0.001$). Gender difference was equally high in both the areas. The overall literacy rate for the 15+ population, the usual international benchmark for adult literacy rate, the 2016 figure is 47.2%
- The literacy rate significantly varied by stratum as well as by neighbourhoods. Stratum-wise, the rate was highest in the city corporations and lowest in rural Chittagong division with a difference of 17.9 percentage points. Gender difference disfavouring females was observed in rural Chittagong, Sylhet and Rangpur divisions and the municipalities. Neighbourhood-wise, the rate varied from 9.8% to 93.8% with a large gap of 80 percentage points. Out of 270 neighbourhoods, 8.1% had a literacy rate below 30%, 10% had 30-<40%, 23.4% had 40-<50%, 30.4% had 50-<60%, 15.9% had 60-<70%, 8.5% had 70-<80%, and 3.7% had 80% or more.
- Among the four domains of literacy, the best outcome was recorded in reading skills (59.1%), followed by writing skills (46%), numeracy skills (44%) and application of the 3R's (37.2%). Urban respondents significantly surpassed their rural counterparts in each of the domains, but males did better than females in two, viz., numeracy and application of the 3R's. No gender difference was found in the other two domains.
- Educational qualifications represented by years of schooling completed by respondents was the most important predictor of their literacy achievement followed by literacy status of household heads. This signifies the importance of school education in literacy attainment. However, a poor performance was observed among those having 3-5 years of schooling. At least 6-7 years of schooling was required to have at least an *initial* level of literacy skills for 80% of the respondents and 10 or more years of schooling was needed for *advanced* level of literacy skills for three-quarters of respondents.
- Literacy rate significantly increased with increase of parental education, food security status of household and household wealth. Two-fifths of the household heads were literate. Three-quarters of

the youth (15-24 years) and 47.2% of adults (15 years and above) were literate. It was only 20.7% among the elders (60+ years). A fifth of the households had not a single literate person, three-fifths had at least one but not all, and another fifth had all members literate. Therefore, 80.5% of the households had at least one literate member.

- Literacy rate for the 11+ population increased from 41.4% in 2002 to 51.3% in 2016 – on average, 0.7% per years. It was due to decrease in percentage of *non-literate* population and increase in literate population with *initial* and *advanced* levels. In 2002, 49.3% of the respondents were *non-literate*, 9.3% *semi-literate*, 21% literate at *initial* level, and 20.4% literate at *advanced* level. These rates became 38.9, 9.8, 25.3 and 26%, respectively in 2016. Although an equal growth rate was observed in reading, writing and numeracy skills, but it was much slower in application of the 3R's. For the 15+ population, the figure for 2002 was 38.8% which increased to 47.3% in 2016.
- Increase in literacy rate was observed among males and females and among the rural respondents; however, it decreased among urban respondents. Stratum-wise, increase in literacy rate was evident in each of the rural strata and decrease in both the urban strata. Sub-group-wise analysis also showed improvement in most cases. Proportion of literate households increased from 61.9% in 2002 to 80.5% in 2016.
- Population in each level of literacy increased due to increase in overall population in the country. In 2002, there were 45.8 million non-literate, 8.6 million semi-literate, 19.5 million literate at *initial* level and 18.9 million literate at *advanced* level population in the country. By 2016, these figures increased to 50.9, 12.8, 33 and 33.9 million, respectively. During 14 years, 28.5 million literates added in the population – over two million per year.
- Literacy rate significantly decreased with increase of age of respondents. The 'EFA generation' (aged 11-29 years who benefited most from the EFA movement) had the highest literacy rate (72.7%) compared to any other age-cohort. This increased from 53.9% in 2002. The rate of increase was almost double in this age-group than that in overall population. Major improvement occurred among rural females.

Chapter Four

Technical and Vocational Skills

This chapter examines the level and type of skills acquired by young people and adults in Bangladesh as determined by a national sample survey. The sample consisted of individuals aged 11 years and over. Information was collected on three broad categories of skills training.

A. Long courses (duration of one year or more) generally described as Technical and Vocational Education and Training (TVET) through a formal training programme leading to a recognised credential (certificate or diploma).

B. Short training courses on various technical and vocational subjects (with duration of less than one year) offered through a formal training programme leading to a recognised credential or certification, and

C. Informal or non-formal training including self-learning in various skills leading potentially to income-earning employment or self-employment, but not offering a recognised credential.

Information was gathered regarding all three forms of skills acquisition through interviews with individuals in the sample; no test was administered to verify their reported skills.

A. Technical and vocational education and training (TVET)

Individuals completing at least eight years of schooling are eligible for secondary level formal courses for Technical and Vocational Education and Training (TVET). Secondary education completers are eligible for TVET at the higher secondary level (grades XI and XII) leading to technical/vocational certificates. Students are eligible to be admitted in certificate or diploma courses of varying duration after completing secondary or higher secondary education. The courses include Secondary (Vocational), Higher Secondary (Vocational), Higher Secondary (Business Management), and diploma in Engineering, Agriculture, Commerce, Textiles, Fisheries, Health Technology, Nursing, Jute Technology, and Forestry etc. The survey found no cases of TVET qualifications among those below 15 years of age and those aged 65 and above. Therefore, respondents belonging to the age-group 15-64 years and having eight or more years of schooling were regarded as eligible respondents for the TVET survey.

Among the eligible respondents 6.5% completed any of the above-mentioned courses (Table 4.1) duration of which were between two to four years. This was 8.9% among males and 4.2% among females ($p<0.001$). Statistically, no difference was observed between the respondents of urban and rural areas – 6.6% of rural and 6.3% of urban respondents took advantage of this service. Gender difference favouring males was noticed in both the areas. In rural areas, 8.9% of males and 4.4% of females in the sample of 15-64 years received TVET ($p<0.001$) and in urban areas 8.6% of males and 3.7% of females received it ($p<0.01$).

A statistically significant difference was found among different strata ($p<0.001$). The highest proportion of eligible respondents from rural Khulna division participated in TVET (10.4%) followed by those from rural Rajshahi division (9.9%), and the municipalities (7.9%) (Figure 4.1). The proportion of

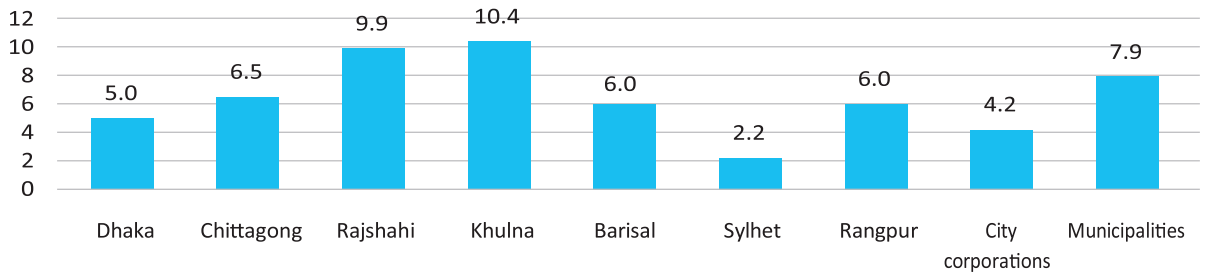
Table 4.1
Percentage of eligible respondents having TVET by residence and gender

Residence	Gender		Both	Level of significance
	Male	Female		
Rural Bangladesh	8.9 (842)	4.4 (895)	6.6 (1,737)	p<0.001
Urban Bangladesh	8.6 (365)	3.7 (378)	6.3 (743)	p<0.01
Significance	ns	ns	ns	
All	8.9 (1,207)	4.2 (1,273)	6.5 (2,480)	p<0.001

Figures in the parentheses indicate number of respondents
Source: Education Watch Skills Survey, 2016

Figure 4.1

Percentage of eligible respondents having TVET by strata



Source: Education Watch Skills Survey, 2016

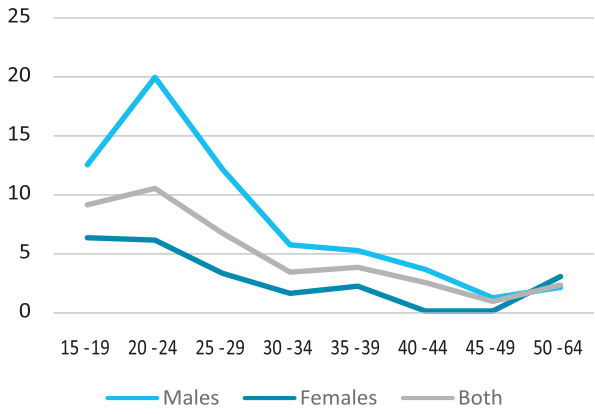
respondents availing themselves of TVET was around 6% in rural Chittagong, Barisal, and Rangpur divisions. It was 5% in rural Dhaka division and 4.2% in the city corporations. Rural Sylhet division was at the bottom of the league table in this regard with only 2.2% of its eligible respondents participating in TVET. Gender difference was observed in four strata where males were ahead of females in each (Annex 4.1). These are rural Dhaka, Khulna and Sylhet divisions, and the city corporations. Note that 14.6% of males in rural Khulna division and 10.8% of them in rural Rajshahi division too advantage of TVET. No female respondent in rural Sylhet division participated in TVET.

The proportion of eligible respondents joining in TVET decreased with increase in the level of education. Those who participated in TVET at the secondary level may or may not avail themselves of it at higher levels (higher secondary or diploma). Again studying in general stream at secondary level may take TVET at higher levels. It was observed that among the eligible respondents, 3.4% studied TVET at secondary level, 2.4% at higher secondary level, and 1.2% did the diploma courses. Of the respondents who joined in TVET, 52.4% participated in it at the secondary level, 36.4% at the higher secondary level and 18.2% at the diploma level. It was interesting to see that the proportion of females was higher than that of the males among those participating in TVET at secondary and higher secondary levels, but a reverse situation was seen at the diploma level.

Respondents aged 20-24 years availed themselves of TVET the most (10.4%) (Annex 4.2). It was 9% among those aged 11-14 years. The figure gradually decreased with the increasing age of respondents. The figures remain very low in terms of the country's skilled manpower needs, though a relatively higher proportion in younger ages in TVET is perhaps an indication of recent improvement in this sub-sector. Residence-wise analysis showed not much variation between rural and urban respondents. However, gender difference was prominent. About a fifth of the males of age 20-24 years received TVET compared to around 6% for females. Age-specific rates by gender are provided in Figure 4.2.

Figure 4.2

Percentage of respondents having TVET by age-group and gender



Source: Education Watch Skills Survey, 2016

A similar analysis by broad age-groups is provided in Table 4.2. This also shows statistically significant decrease in TVET participation with the increasing age of respondents. At the aggregated level, 8.8% of aged 15-29 years, 2.8% of aged 30-49 years, and 2.2% of aged 50-64 years had such training ($p<0.001$). A similar trend was observed among males and females and the rural respondents but not among the urban respondents. Among those aged 15-29 years, 13.6% of males and 5.3% of females and 9.2% of rural and 7.3% of urban respondents received TVET.

Table 4.2
Percentage of respondents joining TVET by broad age-group, gender and residence

Age (in years)	Gender		Residence		All
	Male	Female	Rural	Urban	
15 – 29	13.6	5.3	9.2	7.3	8.8
30 – 49	4.0	1.3	2.3	4.0	2.8
50 – 64	2.0	2.9	0.0	7.1	2.2
Significance	p<0.001	p<0.01	p<0.001	ns	p<0.001
All	8.9	4.2	6.6	6.3	6.5

Source: Education Watch Skills Survey, 2016

An attempt was made to see the relationship between parental education and respondents' participation in TVET (Annexes 4.3 and 4.4). Statistically, no significant variation was observed in respect to fathers' or mothers' educational level. However, gender-wise analysis shows that males' participation in TVET significantly varied with the variation in their mothers' education ($p<0.05$), but not with that of their fathers. Participation rate was significantly higher among those who had ever-schooled mothers even if they did not complete secondary education. On the other hand, residence-wise analysis shows that urban respondents' participation in TVET significantly varied in a negative way with the variation in their fathers' education ($p<0.05$), but not of their mothers'. Here, participation rate was much higher among those urban respondents who had never-schooled fathers. No statistically significant variation in participation in TVET was noticed in terms of yearly food security status of households (Annex 4.5). The same was observed in terms of religious belief (Muslims 6.8% versus non-Muslims 5%) and ethnicity (Small ethnic groups 6.5% versus Bangali 6.2%).

The above findings clearly shows that a large portion of the respondents who possessed nine or more years of schooling did not attend any technical or vocational course. An attempt was made to know from them the reasons for not choosing TVET for study at secondary level or later. A total of nine specific reasons came out, of which four can be treated as major in terms of frequency (Table 4.3). Nearly a third of these respondents reported that TVET did not come to their minds while taking a decision about the further education at grade IX. Over a quarter of the respondents (26.2%) disclosed that they had no idea regarding such education provision. According to 15.7% of the respondents, they had no scope to go for such a study because it was not offered in their secondary schools. Another 13.8% reported that they did not get any advice from their family members to go for TVET. The less frequently cited reasons included: family members did not approve of the choice of TVET (3.1%), high cost of TVET (2.6%), low social status of TVET (2.2%), and a limited scope in the job market (0.7%).

No gender difference was observed in the reasons for not choosing technical and vocational education and training (Table 4.3). However, residence-wise variation was evident in some cases. That TVET did not come to mind while choosing the further education stream at grade IX to 30.7% of rural and 38.4% of urban respondents. Again, 27.7% of rural and 22% of urban respondents had no idea about TVET. There was no scope of studying TVET for 16.6% of rural and 13.3% of urban respondents and 13.2% of rural and 15.6% of urban respondents reported that their family members did not advise them to enrol in such courses.

Table 4.3
Percentage of respondents not taking TVET by reasons, gender and residence

Reasons	Gender		Residence		All (2,321)
	Male (1,101)	Female (1,220)	Rural (1,622)	Urban (699)	
Such an education did not come in mind	32.2	33.3	30.7	38.4	32.8
Had no idea about such education	26.0	26.4	27.7	22.0	26.2
Had no scope to study	16.4	15.1	16.6	13.3	15.7
None in the family advised to do so	13.6	14.1	13.2	15.6	13.8
Family members did not agree	2.9	3.4	3.0	3.7	3.1
Such a study was expensive	3.1	2.1	3.0	1.6	2.6
It carries lower social status	2.1	2.3	2.3	2.0	2.2
No teacher suggested it	2.2	2.0	2.1	2.1	2.1
Limited scope in job market	0.9	0.6	0.7	1.0	0.7
Others	0.6	0.8	0.9	0.3	0.7
Total	100.0	100.0	100.0	100.0	100.0

Figures in the parentheses indicate number of respondents
Source: Education Watch Skills Survey, 2016

B. Short duration skills training

Training on any technical and vocational subject with a duration of less than one year is considered in this section. Participation in such training may or may not require any prerequisite educational qualifications. Therefore, all respondents aged 11 years and above were brought under this analysis. The analysis reveals that less than a tenth of the respondents had attended some short duration skills training; 11% among males and 7.4% among females ($p<0.001$) (Table 4.4). It was 8.3% among rural and 12.3% among urban respondents ($p<0.001$). A statistically significant gender variation in short skills training was observed in both the areas. In rural areas, 10% of males and 6.9% of females had this training ($p<0.001$); and in urban areas, 15.2% of males and 9.8% of females received this training ($p<0.001$).

Table 4.4
Percentage of respondents receiving short skills training by residence and gender

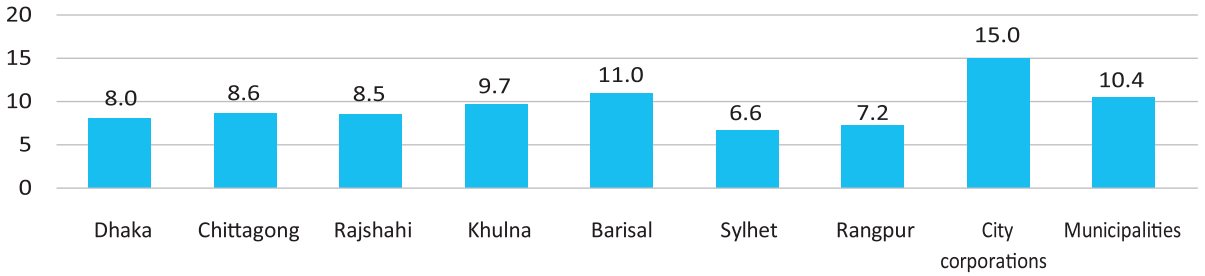
Residence	Gender		Both	Level of significance
	Male	Female		
Rural Bangladesh	10.0 (4,087)	6.9 (4,732)	8.3 (8,819)	p<0.001
Urban Bangladesh	15.2 (1,148)	9.8 (1,313)	12.3 (2,461)	p<0.001
Significance	p<0.001	p<0.001	p<0.001	
All	11.0 (5,235)	7.4 (6,045)	9.1 (11,280)	p<0.001

Figures in the parentheses indicate number of respondents
Source: Education Watch Skills S urvey, 2016

Statistically significant variations were observed among different geographical strata – at aggregate level and separately for both males and females (Annex 4.6). The analysis reveals that the respondents of city corporations had the highest proportion short skills training (15%), followed by rural Barisal division (11%), the municipalities (10.4), and rural Khulna division (9.7%) (Figure 4.3). Among others, more than 8% of the respondents of rural Dhaka, Chittagong and Rajshahi divisions had short training on various skills. The rate was 7.2% in rural Rangpur and 6.6% in rural Sylhet division. Gender difference in short training on various skills was observed in five strata where males were ahead of females in each (Annex

Figure 4.3

Percentage of respondents received short skills training by strata



Source: Education Watch Skills Survey, 2016

4.6). These include four rural (Dhaka, Chittagong, Rajshahi, and Sylhet divisions) and one urban strata (municipalities).

The 42 short training courses which the respondents reported to have received were grouped into nine broad categories for ease of analysis. Over 30% of the short training recipients received it on various aspects of garments manufacturing including tailoring, embroidery, garment machine operating, and block/boutique/screen printing (Table 4.5). About a fifth of the short training recipients received training on computer operations. This means that over a half of the short training recipients fell into two broad categories. Another 16.1% of the skills training recipients received training on food and agriculture related skills, 8.3% on mechanical repairing, 8% on electrical and electronics repairing, 7% on construction and reconstruction of houses, 4.7% on rural handicrafts, 2.4% medical related matters, and 3.3% reported 'others' in their response.

Table 4.5 also shows that females were far ahead of males in receiving training on garments (61.2% versus 5.8%). However, the males were ahead of females in the rest. Rural respondents were ahead of their urban counterparts in receiving training on food and agriculture, construction and reconstruction of house, and rural handicrafts. On the other hand, urban respondents surpassed their rural counterparts in receiving training on computer operating and medical related skills. Training on computer operating was the first choice of majority of the males and of the urban respondents, and garments was for majority of the females and the rural respondents.

Table 4.5

Percentage distribution of respondents who received short skills training by course type, residence and gender

Course type	Gender		Residence		All (1,060)
	Male (580)	Female (480)	Rural (748)	Urban (312)	
Electrical and electronics	14.1	0.2	8.5	6.5	8.0
Construction or reconstruction of house	12.4	0.2	8.0	4.2	7.0
Tailoring	5.8	61.2	30.8	28.1	30.2
Medical technology	3.7	0.9	3.1	0.7	2.4
Agriculture and food	19.7	11.5	18.3	9.8	16.1
Rural handicrafts	1.4	8.9	5.3	2.9	4.7
Mechanical repairing	14.8	0.0	7.6	10.5	8.3
Computer operating	24.4	14.2	15.5	32.9	19.9
Others	3.7	2.9	2.8	4.4	3.3
Total	100.0	100.0	100.0	100.0	100.0

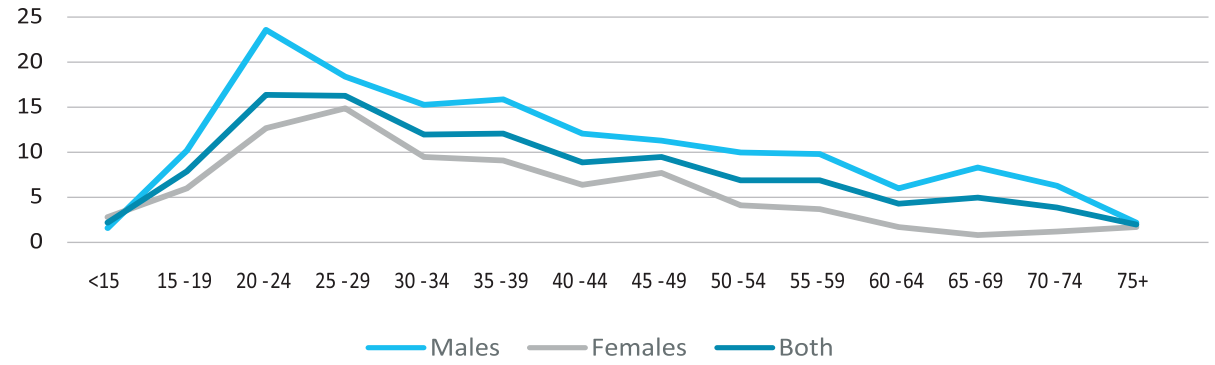
Figures in the parentheses indicate number of respondents

Source: Education Watch Skills Survey, 2016

Age-wise, over 16% of the respondents of age 20-14 and 25-29 years received skills training of short length; the next figure was for those aged 30-34 and 35-39 years at about 12% receiving such training (Figure 4.4 and Annex 4.7). Proportion of respondents receiving short training courses decreased with the increase of age of the respondents. Such a trend was also observed when data were analysed by gender and by residence (Annex 4.7). Broad age-group wise analysis shows that 9.8% of the respondents of age 11-29 years, 10.7% of those aged 30-49 years, 5.8% of those aged 50-69 years and 2.7% of those aged 70 year or more had short skills training (Annex 4.8). The rate for females was lower than that of the males in each age-group.

Figure 4.4

Percentage of respondents receiving short skills training by age and gender

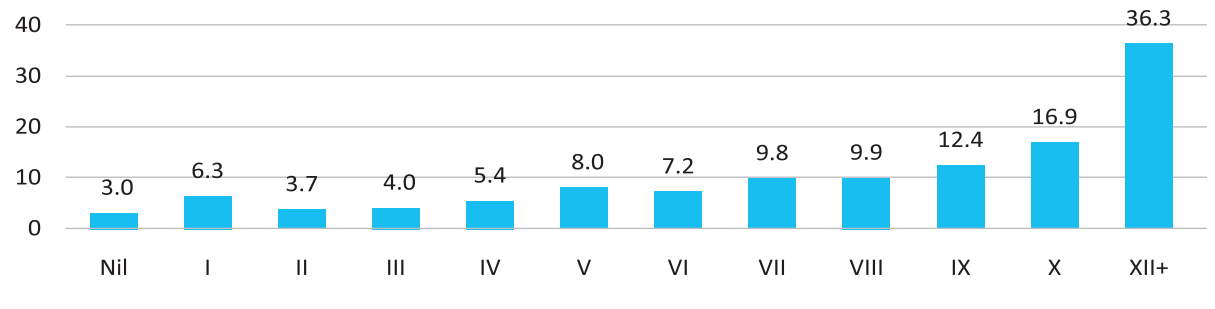


Source: Education Watch Skills Survey, 2016

Educational qualification of the respondents was cross-tabulated with their receipt of short skills training. The analysis reveals that percentage of respondents receiving short skills training increased significantly with the increase of their educational qualifications ($p<0.001$). Only 3% of the never-schooled respondents received such training, it was 8% among those who completed primary education, 9.9% among those who completed junior secondary education, 16.9% among those who completed secondary education, and 36.3% among those who completed higher secondary or more education (Figure 4.5).

Figure 4.5

Percentage of respondents receiving short skillls training by level of education



Source: Education Watch Skills Survey, 2016

The above analysis was redone by grouping the educational qualifications into five categories and segregating data by gender and residence (Table 4.6). A similar result was observed for each sub-group of respondents. At the aggregate level, 3% of the never-schooled respondents, 4.8% of the respondents with 1-4 years of schooling, 8.3% of the respondents with 5-7 years of schooling, 11.2% of the respondents with 8-9 years of schooling, and a quarter of the respondents with 10 or more years of schooling received skills training of short duration (p<0.001). With 10 or more years of schooling, 24.9% of males and 29% of females received such training. This was 23% among rural and 31.7% among urban respondents with similar educational qualifications.

A statistically significant positive trend was observed in receiving short training courses and parental education (Annexes 4.9 and 4.10). Only 6.9% of the respondents of never-schooled mothers had skills training of short length which increased to 10.1% among those with 1-4 years of mothers education, 14.7% among those with 5-9 years of mothers education, and 17.2% among those with 10 or more years of mothers education (p<0.001). These figures were 5.8, 9.9, 12.8 and 17.7%, respectively for similar levels of fathers' education (p<0.001). A similar trend was observed in both cases irrespective of gender of respondents and area of residence.

Table 4.6

Percentage of respondents receiving short skills training by years of schooling completed, gender and residence

Years of schooling completed	Gender		Residence		All
	Male	Female	Rural	Urban	
Nil	2.9	3.4	2.8	3.7	3.0
I – IV	5.0	3.9	5.0	4.0	4.8
V – VII	8.6	6.1	8.1	9.4	8.3
VIII – IX	11.7	8.0	11.4	10.5	11.2
X+	24.9	29.0	23.0	31.7	25.5
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001
All	11.0	7.4	8.3	12.3	9.1

Source: Education Watch Skills Survey, 2016

The proportion of respondents having short skills training also increased significantly with the improvement of household yearly food security status (Annex 4.11). For instance, 6.7% of the respondents from 'always in deficit' households had such training, which increased to 7.7% for those who came from 'sometimes in deficit' house-holds, 8.5% for those who came from 'break-even' households, and 10.7% for those who came from 'surplus' households (p<0.001). Gender and residence segregated analysis of this also produced similar results.

Although no significant difference was observed between Muslim and non-Muslim respondents in having short skills training (9.2% versus 8%), the Bangalis were significantly ahead of the small ethnic groups in this regard (9.3% versus 3.5%; p<0.001).

Table 4.7

Percentage distribution of respondents who received short skills training by course type and educational qualification

Course type	Level of education				
	Nil (87)	I – IV (111)	V – VII (214)	VIII –IX (176)	X+ (472)
Electrical and electronics	3.3	9.7	11.2	7.5	7.0
Construction or reconstruction of house	14.1	18.6	9.3	5.8	1.6
Tailoring	12.0	31.9	44.7	46.2	20.0
Medical	0.0	0.0	0.0	2.3	4.9
Agriculture and food	30.4	15.9	18.6	13.3	13.1
Rural handicrafts	14.1	6.2	6.0	7.5	0.5
Mechanical repairing	19.6	12.4	9.3	7.5	4.7
Computer operating	0.0	0.9	0.0	6.4	44.5
Others	6.5	4.4	0.9	3.4	3.8
Total	100.0	100.0	100.0	100.0	100.0

Figures in the parentheses indicate number of respondents
Source: Education Watch Skills Survey, 2016

The relationship between educational qualifications of the respondents and choice of short skills training course is provided in Table 4.7. A tendency to receive short skills training in construction and reconstruction of house, agriculture and food processing, rural handicrafts, and mechanical repairing decreased with the increase of educational qualification of respondents. Having skills in electrical and electronics increased up to grades V-VII and then decreased. In case of having skills in garments related issues, an increasing trend was observed up to grades VIII-IX which then suddenly decreased. Short skills training in computer operating was concentrated mostly among those who had 10 or more years of schooling.

C. Skills acquired through informal and non-formal ways

This section presents information on acquisition of various skills required for income generation through participation in training courses organized in informal or non-formal mode including self-learning. Various forms of skills with various duration of training/learning are included in this. Skills acquired at home from the household members were also counted. The distinction between non-formal and informal training lies in the fact that a training institution or programme is involved in non-formal training, whereas informal training occurs incidentally or through informal arrangements within family or in the community (such as passing on skills from elders to youngsters through informal or traditional apprenticeship).

On average, 42% of the respondents aged 11 years and above had some sort of skills acquired through informal or non-formal ways (Table 4.8). They were 48.4% among males and 36.6% among females ($p<0.001$), and 41.5% among rural and 44.5% among urban respondents ($p<0.001$). Gender difference prevails in both the areas. In rural areas, 48.3% among males and 35.6% among females had such skills ($p<0.001$); and in urban areas, 49% of males and 40.7% of females had such skills ($p<0.001$). Whereas the gender gap was 12.7 percentage points in rural areas, it was 8.3 percentage points in urban areas

Statistically significant variation was observed in respondents' acquisition of skills through informal or non-formal ways among different strata (Figure 4.6). Proportions of respondents acquiring such skills were highest in rural Khulna division (57.9%), followed jointly by rural Rajshahi and Sylhet divisions (about 53.5% each). It was lowest in rural Rangpur division where only 30.1% of the respondents had such skills. About a third of the respondents of rural Dhaka and Barisal divisions also had such skills. It was 42-47% among the respondents of the two urban strata and rural Chittagong division.

Gender difference in skills acquisition through informal and non-formal ways persisted in seven of the nine strata (Annex 4.12). Males were ahead of females in each. The two strata where there was no gender difference are rural Chittagong division and the city corporations. Among the females, rural Khulna division was at the top in acquiring such skills (51.8%) followed by rural Sylhet division (49.7%). Rural Rangpur division was at the bottom among the females (18.6%). On the other hand, rural Rajshahi division was at the top

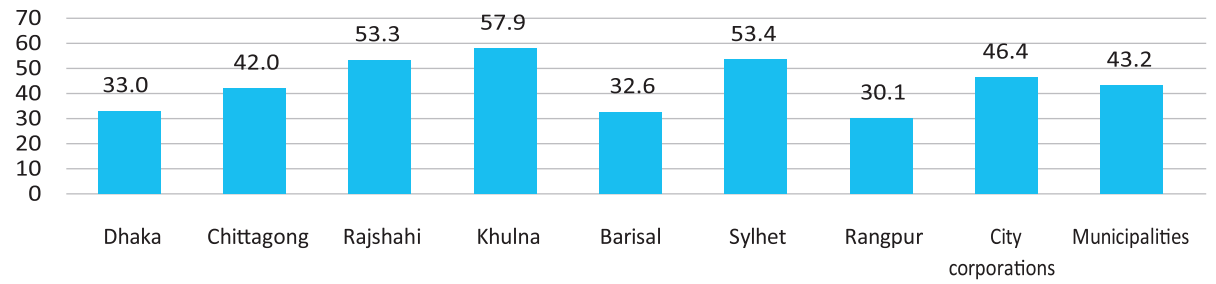
Table 4.8
Percentage of respondents receiving informal/nonformal skills Training by residence and gender

Residence	Gender		Both	Level of significance
	Male	Female		
Rural Bangladesh	48.3 (4,087)	35.6 (4,732)	41.5 (8,819)	p<0.001
Urban Bangladesh	49.0 (1,148)	40.7 (1,313)	44.5 (2,461)	p<0.001
Significance	ns	p<0.001	p<0.001	
All	48.4 (5,235)	36.6 (6,045)	42.0 (11,280)	p<0.001

Figures in the parentheses indicate number of respondents
Source: Education Watch Skills Survey, 2016

Figure 4.6

Percentage of respondents receiving informal/non-formal skills training by strata



Source: Education Watch Skills Survey, 2016

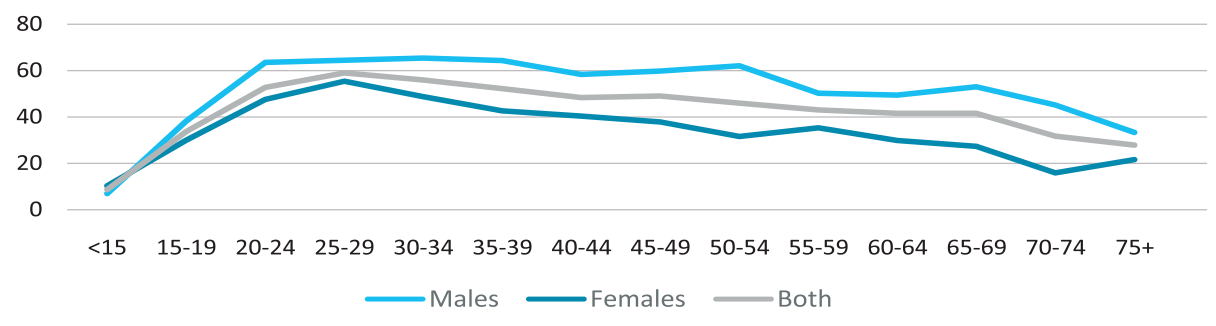
among the males (68.4%) followed by rural Khulna division (64.8%). Rural Dhaka division was at the bottom among the males (38.2%).

Age-specific analysis shows that the proportion of respondents having such skills increased from 8.6% among those aged 11-14 years to 59% among those aged 25-29 years and then gradually decreased to 27.8% among those aged 75 year or more (Figure 4.7 and Annex 4.13). Although a similar trend was observed by gender and area of residence, the respondents aged 25-29 years were at the top among females and in the rural areas and it was age 30-34 years when males and urban respondents were at the top (Annex 4.13). A similar analysis by broad age-group is provided in Annex 4.14 which also shows statistically significant age variation in acquiring informal/non-formal skills. The proportion of respondents receiving such skills training was highest among those aged 30-49 years – more than half of the respondents of this age-group had such skills training. They were followed by those aged 50-69 years (43.3%), 11-29 years (36%) and 70 or more (29.5%), respectively.

At an aggregate level, the proportion of respondents acquiring skills through informal or non-formal ways decreased with the increase of their mothers' education; however, an opposite relationship was observed in respect to fathers' education (Annexes 4.15 and 4.16). Decreasing trend in skills acquisition with respect to mothers' education was separately observed among males and females and among rural respondents

Figure 4.7

Percentage of respondents receiving informal/non-formal skills training by age and gender



Source: Education Watch Skills Survey, 2016

but not among urban respondents. On the other hand, in terms of fathers' education, an increasing trend was observed among females and urban respondents, but no variation was observed among males and rural respondents.

Acquisition of skills through informal/non-formal ways significantly increased with the increase of the food security status of the households (Annex 4.17). For instance, 35.4% of the respondents from 'always in deficit' households, 39.7% of the respondents from 'sometimes in deficit' households, 41.6% of those from 'break-even' households, and 44.7% of those in 'surplus' households had similar skills ($p<0.001$). Such an increasing trend was observed separately among males and females and the rural respondents, but no variation was observed among urban respondents.

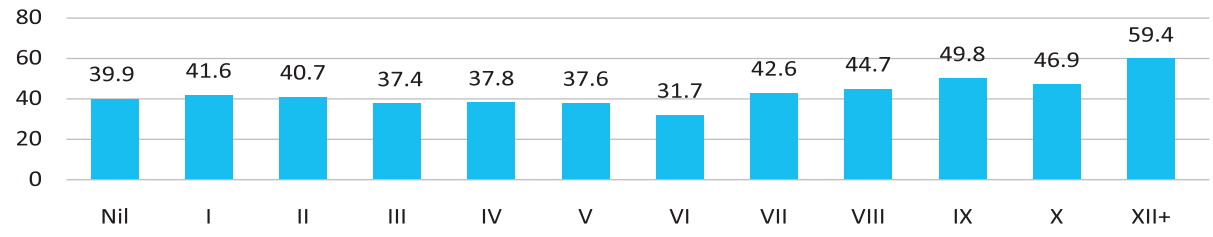
Statistically significant difference in acquisition of skills through informal/non-formal ways was observed in terms of religion and ethnicity. Non-Muslims were significantly ahead of Muslims (54.4% versus 40.3%; $p<0.001$) and small ethnic groups significantly surpassed the Bangalis (63.1% versus 41.3%; $p<0.001$).

The relationship between respondents' years of schooling completed and acquisition of skills through informal/non-formal ways was examined. A statistically significant variation in proportion of respondents having such skills was observed ($p<0.001$). About 40-41% of the respondents with nil to two years of schooling had such skills which decreased to 37-38% among those who had 3-5 years of schooling; this suddenly dropped to 31.7% for those having six years of schooling and then gradually increased to 59.4% among those having 12 or more years of schooling (Figure 4.8).

The above analysis was repeated by grouping the educational qualifications into five broad categories and segregating data by gender and residence (Table 4.9). However, a similar pattern was observed for each sub-group of respondents. At the aggregated level, 39.8% of the never-schooled respondents, 39% of the

Figure 4.8

Percentage of respondents receiving informal/non-formal skills training by level of education



Source: Education Watch Skills Survey, 2016

respondents with 1-4 years of schooling, 37.5% of the respondents with 5-7 years of schooling, 47.3% of the respondents with 8-9 years of schooling, and 52.4% of the respondents with 10 or more years of schooling reported to have skills acquired through informal/non-formal ways ($p<0.001$). This clearly shows a u-shape relationship between years of schooling and skills acquisition. With 10 or more years of schooling, 55.1% of males and 49.4% of females received such training. This was 52.7% among rural and 51.7% among urban respondents with similar educational qualifications.

A total of 63 various types of skills were mentioned by the respondents on which they received training through informal/non-formal ways. The skills were grouped into nine broad categories for ease of analysis. Among the respondents who claimed that they had such skills, majority reported to have skills in agriculture and food processing (34.5%), followed by rural handicrafts (23.8%) and tailoring (17.5%), respectively (Table 4.10). Over three-quarters of the respondents who had training in such skills belongs to these three categories. Male-female difference persists. Half of the males had skills training in agriculture and food, followed by 12.1% in construction or reconstruction of house. Otherwise, 16.4% of the females were skilled in rural handicrafts, 32.9% in tailoring, and 16.1% in food and agriculture. Variation between rural and urban areas also observed. Of the rural respondents, 38.3% claimed to be skilled in agriculture and food, 24% in rural handicrafts, and 16.3% in tailoring. Among the urban respondents, about 23% claimed to have skills training in each of tailoring and handicrafts, 19.2% in agriculture and food processing, and 10.1% in computer operating.

Table 4.9

Percentage of respondents receiving informal/non-formal skills training by level of education, gender and residence

Level of education	Gender		Residence		All
	Male	Female	Rural	Urban	
Nil	51.9	30.0	39.7	41.0	39.8
I – IV	43.8	34.2	38.6	40.8	39.0
V – VII	41.5	34.5	37.1	40.0	37.5
VIII – IX	51.9	44.0	46.7	50.1	47.3
X+	55.1	49.4	52.7	51.7	52.4
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001
All	48.4	36.6	41.5	44.5	42.0

Source: Education Watch Skills Survey, 2016

Table 4.10

Percentage distribution of respondents who received informal/non-formal skills training by course type, residence and gender

Course type	Gender		Residence		All
	Male (2,637)	Female (2,281)	Rural (3,816)	Urban (1,102)	(4,918)
Electrical and electronics	7.4	0.3	3.8	5.2	4.1
Construction or reconstruction of house	12.1	0.0	5.9	8.5	6.5
Tailoring	4.0	32.9	16.3	22.8	17.5
Medical technology	1.3	0.5	1.0	0.5	0.9
Agriculture and food	50.6	16.1	38.3	19.2	34.5
Rural handicrafts	3.9	46.4	24.0	22.9	23.8
Mechanical repairing	9.1	0.1	4.2	7.3	4.9
Computer operating	6.1	2.4	3.1	10.1	4.5
Others	5.4	1.3	3.3	3.5	3.4
Total	100.0	100.0	100.0	100.0	100.0

Figures in the parentheses indicate number of respondents

Source: Education Watch Skills Survey, 2016

Relationship between educational qualification of the respondents and acquiring skills through informal/non-formal ways was explored (Table 4.11). Having skills in electrical and electronics, computer operating, and tailoring increased with the increase of respondents educational qualifications. On the other hand, skills training in construction and reconstruction of house, agriculture and food, handicrafts, and mechanical repairing decreased with the increase of educational qualification of respondents. It is worth mentioning here that the never-schooled respondents were concentrated in only two categories of skills training. The number of categories with substantial frequency increased with the increase of educational qualifications. In other words, diversification of skills occurred with the increase of educational qualification of respondents.

The majority of the respondents learned these skills from family members or relatives (47.7%), followed by arrangement with *Ustads* (mentors) in the workshops or shop owners (22.5%), by themselves (15.2%), and from non-formal training in any government or non-government training institution or training centres (10.6%) (Figure 4.9). No variation was observed between males and females or between rural and urban areas in the sources of skills learning (Annex 4.18). However, proportionately more males than females received training from government and non-government institutions and from the *Ustads* in the workshops or shop owners. On the other hand, females generally preferred sources that were NGOs, family members, relatives and self-learning. Urban respondents preferred government and non-government institutions, *Ustads* in workshops and shop owners, but rural respondents preferred family members, relatives and self-learning. The majority of the sources of learning skills was located in the respondents' own neighbourhoods (68.2%), followed by other districts (10.2%) (Annex 4.19).

Table 4.11

Percentage distribution of respondents who received informal/non-formal skills training by course type and educational qualification

Course type	Level of education				
	Nil (1,225)	I – IV (956)	V – VII (1,015)	VIII – IX (759)	X+ (963)
Electrical and electronics	1.8	3.4	4.4	6.8	5.5
Construction or reconstruction of house	6.2	9.4	8.9	4.5	2.6
Tailoring	4.1	11.8	22.3	31.7	25.5
Medical technology	0.2	0.1	0.2	0.7	3.7
Agriculture and food	53.3	34.5	27.5	23.5	24.0
Rural handicrafts	25.9	29.8	26.7	22.9	12.2
Mechanical repairing	5.4	5.9	5.4	4.4	2.8
Computer operating	0.0	0.2	1.1	2.1	20.9
Others	3.2	4.1	3.5	3.5	2.7
Total	100.0	100.0	100.0	100.0	100.0

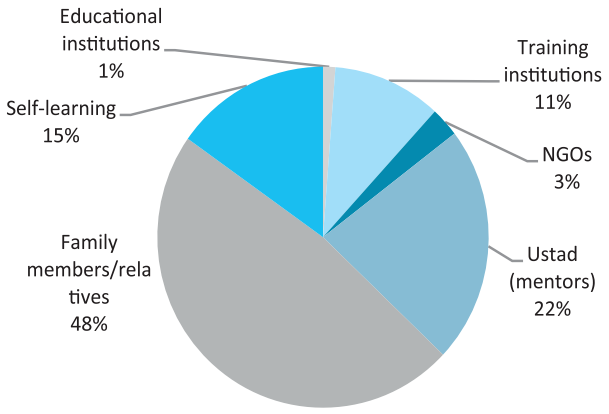
Figures in the parentheses indicate number of respondents

Source: Education Watch Skills Survey, 2016

The proportions of respondents learning skills from some sort of institutional arrangement – any educational institution, government or non-government training centres and NGOs – increased with increase of their educational qualifications (Annex 4.20). On the other hand, an opposite scenario was observed in the case of learning skills from family members or relatives or on their own (self-learner). An inverse U-shape relation was observed in the case of learning from *Ustads* (mentors). Although, on average, majority of the respondents received the skills at their neighbourhoods, such a tendency decreased with the increase of educational qualifications of respondents (Annex 4.21). Learning skills from union, *upazila* and district level official sources and from nearby districts increased with the increase of educational qualifications.

Figure 4.9

Distribution of respondents who learned skills through informal/non-formal ways by source of training



Source: Education Watch Skills Survey, 2016

Respondents were asked about the reasons for acquiring such skills. Over a half reported

to have participated in these for additional income (Table 4.12). However, a fifth reported that they did not have any specific reason for learning skills; they did it without giving much thought to it – they 'just wished to do so'. Among others, 9.4% of the respondents wanted to learn skills in order to start a business of their own, and 7.7% expected to get a job after training. About 8% of the respondents joined the training because they were advised so by their family members or by relatives. Proportionately more males than females joined training with an intention to get a job (11.2% versus 3.6%), to start own business (15.5% versus 2.5%), and for additional income (57.7% versus 46.7%). Having no specific reason to learn skills occurred more frequently among females than males (37.7% versus 4.5%). Proportionately more rural respondents joined in training for additional income than their urban counterparts (55.2% versus 41.5%). An opposite scenario was observed in respect of two reasons, viz., to get a job (6.7% versus 11.6%) and having no specific reason (18% versus 28.2%).

Whether the above mentioned reasons have any relationship with the educational qualifications of the respondents was examined. The proportion of respondents acquiring the above skills for additional income or to start a business of their own decreased with the increase of their educational qualifications (Annex 4.22). On the other hand, an increasing trend was noticed in having such skills without any specific reason. Joining skills training for getting a job was much more prominent for those who had 10 or more years of schooling than those belonging to the lower educational groups.

Table 4.12

Percentage of respondents who jointed informal/non-formal skills training with breakdown forways by reason of learning skills, gender and residence

Reasons	Gender		Residence		All (4,918)
	Male (2,637)	Female (2,281)	Rural (3,816)	Urban (1,102)	
To get a job	11.2	3.6	6.7	11.6	7.7
To get promotion	0.8	0.1	0.3	1.4	0.5
To get overseas job	1.6	0.1	0.9	1.0	0.9
To start a business of my own	15.5	2.5	9.5	9.0	9.4
For additional income	57.7	46.7	55.2	41.5	52.5
Advised by family members, relatives	7.7	8.1	8.3	6.2	7.9
Ustad (mentors), shop owner advised	0.4	0.5	0.5	0.3	0.4
Had no specific reason	4.5	37.7	18.0	28.2	20.0
Others	0.6	0.6	0.5	0.8	0.6
Total	100.0	100.0	100.0	100.0	100.0

Figures in the parentheses indicate number of respondents

Source: Education Watch Skills Survey, 2016

Among the respondents who acquired skills from various informal/non-formal sources were asked whether these skills had any role in their livelihoods. Nearly 22% of them reported that they 'fully used' their skills, 35.8% reported 'partial use', and 42.3% reported 'not at all' (Table 4.13). Males were significantly ahead of females in 'full use' of acquired skills (36.8% versus 4.8%; $p<0.001$) and there was no gender difference in 'partial use' of skills. Therefore, more females than males experienced 'no use' of their skills. On the other hand, rural respondents were ahead of their urban counterparts in 'full use' of skills and an opposite scenario was observed in 'partial use' of skills. Finally, 'no use' of skills was prominent among the urban respondents than rural respondents.

Statistically significant variation was observed in use of skills by strata and years of schooling. Two top strata in terms of 'no use' of acquired skills in livelihoods were city corporations and rural Sylhet division (Annex 4.23). Such situation occurred for about 60% of the cases in both the strata. More than half of the

respondents of municipalities also reported the same. Rural Rangpur division was at the top in terms of use of acquired skills, followed by rural Rajshahi and Dhaka divisions, respectively. Although in terms of level of education, no significant difference was observed in 'partial use' of skills, but a decreasing trend was observed in 'full use' of skills and an increasing trend in 'no use' (Table 4.14). Similar results were observed in urban and rural areas separately, as well as for the males (Annexes 4.24 and 4.25). For females, no difference was observed in 'full use' of skills, but 'partial use' significantly decreased with the increase of level of education and 'no use' increased with the increase of educational qualifications (Annex 4.24).

Table 4.13

Percentage distribution of population who received informal/non-formal skills training with breakdown for use of skills, residence and gender

Use of skills	Gender		Residence		All (4,918)
	Male (2,637)	Female (2,281)	Rural (3,816)	Urban (1,102)	
Fully used	36.8	4.8	22.4	19.6	21.9
Partially used	34.6	37.2	38.5	24.8	35.8
No use	28.6	58.0	39.1	55.6	42.3
Total	100.0	100.0	100.0	100.0	100.0

Figures in the parentheses indicate number of respondents

Source: Education Watch Skills Survey, 2016

Those who were unable to use their acquired skills in livelihoods were asked to identify the reasons for such a situation. Nine specific reasons came out (Table 4.15). The majority of them could not use their acquired skills due to being employed in a job that was unrelated to their skills. This was the case for a third of such respondents. Another 23.2% mentioned that they did not try enough to get a job related to their skills, and health reasons were cited for not being employed in the area of their skill training by 14.9% of the respondents. Nearly 10% of the respondents reported scarcity of money (presumably for capital investment or operating costs in self-employment) as an obstacle to using acquired skills. Another 6.3% faced barrier from their family or society, and 6.1% did not find a job related to skills in which they had training. Reasons like 'did not try enough' and 'social/familial barrier' were more prominent for females than males and an opposite scenario was observed in the case of males, more of whom mentioned 'got a job unrelated to skills'. Rural respondents were ahead of their urban counterparts in citing 'scarcity of capital' and 'poor health condition' as a reason of not using skills in livelihoods. However, more urban respondents could not use their skills due to 'getting a job unrelated to skills'. The reasons of not using skills were cross-tabulated with the educational qualifications of the respondents, but no trend emerged from this analysis (Annex 4.26).

Table 4.14

Percentage distribution of respondents who received informal/non-formal skills training by level of education and degree of use of skills

Education	Sample size	Use of skills		
		Fully	Partially	None
Nil	1,225	28.9	39.2	31.9
I – IV	956	26.5	33.4	40.1
V – VII	1,015	19.4	39.7	40.9
VIII – IX	759	16.7	34.0	49.3
X+	963	14.1	30.8	55.1
All	4,918	21.8	35.8	42.3

Source: Education Watch Skills Survey, 2016

Among the respondents who did not acquire any skills through informal/non-formal sources were asked whether they feel the need for any such training which might help in their livelihoods. About one half of them showed an interest in it; 48.7% among males and 49.8% among females (ns) and 49.1% among rural respondents and 50.9% among urban respondents (ns) (Table 4.16). This also significantly varied by strata – at aggregated level as well as by gender (Annex 4.27). Respondents of rural Rajshahi and Khulna divisions were two top strata followed by rural Sylhet division and the municipalities. Rural Barisal division was at the bottom in this regard.

The majority of the respondents who wanted to learn skills were young and educated. Analysis reveals that about three-quarters of aged 11-29 years showed an interest to learn skills which was 37% among those aged 30-49 years, 12.5% among those 50-69 years and 1.8% among those 70 years or older (p<0.001) (Annex 4.28). Annex 4.27 shows that 22.4% of the never-schooled, 47.3% of those having 1-4 years of schooling, and about two-thirds of the primary completers wanted to learn skills (p<0.001). Thirty-nine percent of them wanted training on tailoring, 29% on computer operating, 9% on cow/goat rearing, 4% on driving, another 4% on electrical and electronics and rest on various other skills. Statistically significant variation in the desire for informal/non-formal skills training was observed in terms of parental education as well as yearly food security status of households (Annex 4.30 and 4.31). The proportion of respondents who wished to learn skills was much lower if the parents had no education. Demand for learning skills increased at least 20 percentage points if the parents had incomplete primary education. Of the four categories of food security status, the highest proportion of respondents who wanted to learn skills belonged to 'sometimes in deficit' households (Annex 4.32). Proportionately more Muslims than non-Muslims wanted to learn such skills (49.8% versus 45.8%; p<0.05), but no significant difference was observed in terms of ethnicity.

Table 4.15

Percentage of population who were unable to use their skills in income-earning activities by reasonscited, gender and residence

Reasons	Gender		Residence		All (2,296)
	Male (850)	Female (1,446)	Rural (1,655)	Urban (641)	
Scarcity of skills related job	6.8	5.7	6.4	5.6	6.1
Did not try enough	10.0	30.5	23.3	22.7	23.2
Scarcity of capital (money)	8.2	10.5	11.1	5.7	9.7
Family/social restriction	1.5	8.9	5.8	7.9	6.3
Did not have required educational qualification	1.4	3.0	2.9	1.3	2.4
Got other kind of job	55.5	21.4	30.3	42.9	33.6
Health does not permit due to illness	13.6	15.6	16.3	10.6	14.9
Low income in skill related job	1.8	2.9	2.5	2.3	2.5
Still in the process of learning	0.4	0.5	0.4	0.5	0.4
Others	0.8	0.9	1.1	0.5	0.9

Figures in the parentheses indicate number of respondents
Source: Education Watch Skills Survey, 2016

Table 4.16

Percentage of eligible respondents joining TVET by residence and gender

Strata	Gender		Both	Level of significance
	Male	Female		
Rural Bangladesh	48.8 (1,951)	49.3 (2,946)	49.1 (4,897)	ns
Urban Bangladesh	48.6 (569)	52.5 (764)	50.9 (1,333)	ns
Significance	ns	ns	ns	
All	48.7 (2,520)	49.8 (3,710)	49.4 (6,230)	ns

Figures in the parentheses indicate number of respondents
Source: Education Watch Skills Survey, 2016

D. Occupation, household wealth and types of skills training

This analysis on the link between learning skills, type of occupation and household economic situation was done in two ways. Firstly, we explored the proportion of respondents with types of skills training. Secondly, we examined the distribution of respondents with particular categories of skills training by their occupation.

Over 13% of the drivers of vehicles, 7.2% of the salaried jobholders, 5% of the businesspersons, and 10.2% of other sundry occupational groups had technical and vocational education and training (TVET) (Table 4.17). Again, 18.2% of the unemployed respondents, 10% of the disabled persons, and 6.9% of those who were doing nothing also had TVET. Nearly 10% of the current students also had TVET. On the other hand, a majority of the respondents who received TVET were still students at the time of the survey (Annex 4.33). They were 54.6% of all those who participated in TVET. Another 12.6% of them were engaged in household work, 11.9% got a salaried job, 7.5% were engaged in a business, and the rest had various other occupations.

Nearly a quarter of the salaried job holders; a fifth of drivers of vehicles; 15 to 16% of handicrafts persons, carpenters, masons, and electricians; 13.6% of business persons; and 15.2% of the unemployed had short skills training (Table 4.17). Less than 10% of each of the other occupational groups also had such training. In other words, among those who received short skills training, 29.9% were involved in household work, 18.3% were students, 11.2% had salaried job, 11.1% were in business, 8.6% were engaged in agricultural activities, and the rest had various other occupations (Annex 4.33).

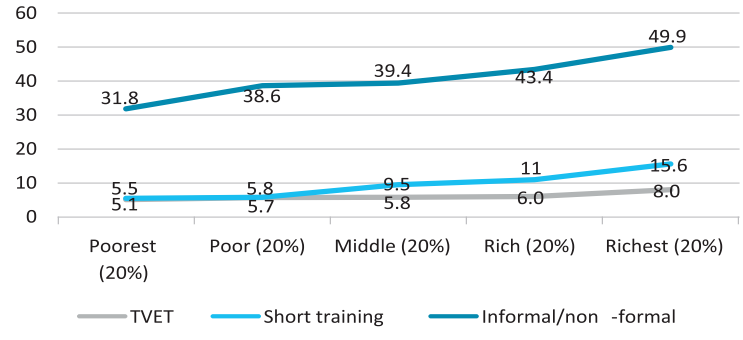
Almost each of the handicrafts-trained persons (97.8%), 92.2% of the vehicle drivers, 85.8% of the carpenters, masons and electricians, and 65.6% of those engaged in agriculture had skills training through informal or non-formal ways (Table 4.17). More than half of the salaried job holders, business persons, rickshaw/van/boat pullers, and fishermen also went through such type of skills learning. Less than half of other professional groups had this form of skills training. In other words, among those who had informal or non-formal training on various skills, 35.4% were engaged in household work, 14.9% in agricultural activities, 10.2% were students, 9.2% were in business, 5% were carpenters, masons or electricians, and the rest had various other occupations (Annex 4.33).

Table 4.17
Percentage of respondents having types of training skills by occupation

Occupation	Various skills		
	TVET	Short course	Informal/ non-formal training
Agriculture	2.8	8.1	65.6
Day labour	0.0	5.4	47.0
Salaried job	7.2	23.5	56.2
Business	5.0	13.6	52.0
Driving	13.3	19.4	92.2
Rikshaw/van/boat pooler	0.0	7.1	50.8
Carpenter/mason/electrician	0.0	16.4	85.8
Fishing	0.0	10.0	50.0
Handicrafts	0.0	15.6	97.8
Household work	2.6	7.5	41.1
Student	9.8	7.6	19.7
Do nothing	6.9	7.0	26.3
Unemployed	18.2	15.2	39.1
Disabled	10.0	2.9	24.4
Retired/elder person	2.1	3.2	28.8
Others	10.3	30.2	73.8
All	6.2	9.1	42.0

Source: Education Watch Skills Survey, 2016

Figure 4.10
Percentage of respondnets having various categories of skills by wealth ranking of households



Source: Education Watch Skills Survey, 2016

Percentages of respondents having various categories of skills training by wealth ranking of households is provided in Figure 4.10. The analysis reveals that participation in each of the three categories of skills training significantly increased with the increase in wealth ranking of households.

E. Multivariate analysis of skills acquisition

Three multivariate logistic regression models were developed in order to find out the predictive factors of the three types of skills training. Eligible respondents for each of this analysis was the same as above. The three dependent variables were whether the respondents had participated in the categories of skills training. The same ten explanatory variables that were used for analysing literacy were considered here too. Measurement of these are provided in Annex 3.33. Like as literacy analysis a stepwise approach was followed in building the models. Therefore, only the statistically significant variables (at p<0.05 level) appeared in the models.

Table 4.18 provides the model predicting participation in TVET. Only three of the 10 explanatory variables appeared in the model which collectively explained only 5% of the variation in dependent variable. The predictive variables, in terms chronology of appearance in the model, are age, gender and educational qualification of respondents. Age of the respondents played a negative role in TVET participation; whereas educational qualification had a positive role. Males were more likely to participate in TVET than females.

Table 4.18
Logistic regression model predicting participation in TVET

Explanatory variables	Regression coefficient	Odds ratio	95% CI of odds ratio	Level of significance
Age	-0.078	0.925	0.905–0.946	P<0.001
Education	0.403	1.496	1.288–1.737	P<0.001
Gender: male	1.068	2.911	2.023–4.188	P<0.001
Constant	-5.515			p<0.001
-2 Log Likelihood	989.012			
Cox & Snell R^2	0.045			
Nagelkerke R^2	0.117			

Source: Education Watch Skills Survey, 2016

Table 4.19 presents the regression model predicting participation in short skills training. Of the 10 explanatory variables considered in analysis, the final model considered six. These, in terms of chronology of appearance in the model, are educational qualification, gender and age of respondents, household wealth, area of residence, and ethnicity. These variables collectively explained only 7% of the variation in the dependent variable. The model shows that participation in short skills training increased with the increase of educational qualification of the

Table 4.19
Logistic regression model predicting participation in short skills training

Explanatory variables	Regression coefficient	Odds ratio	95% CI of odds ratio	Level of significance
Age	0.008	1.008	1.003–1.012	p<0.001
Education	0.217	1.242	1.216–1.268	p<0.001
Gender: male	0.342	1.408	1.221–1.622	p<0.001
Area: Urban	0.229	1.257	1.067–1.480	p<0.01
Ethnicity: Bangali	0.667	1.948	1.104–3.439	p<0.05
Household wealth	0.060	1.062	1.026–1.100	p<0.001
Constant	-5.143			p<0.001
-2 Log Likelihood	5636.49			
Cox & Snell R^2	0.065			
Nagelkerke R^2	0.141			

Source: Education Watch Skills Survey, 2016

respondents and household wealth. However, it decreased with the increase of respondents' age. Males, Bangalis and the urban respondents were more likely to avail themselves of short skills training than their respective counterparts among females, small ethnic groups and rural respondents.

Table 4.20 presents the regression model predicting respondents acquiring skills through informal/non-formal ways. Nine of the 10 variables appeared in the final model which collectively explained 6% of the variation in the dependent variable. The variables, in terms of appearance in the model, are gender, religion, educational qualification, age, mothers' education, ethnicity, household wealth, area of residence, and gender of household head. The results reveal that acquisition of skills through informal/non-formal ways increased with the increase of educational qualifications, mothers' education, and household wealth of respondents. It decreased with increase in age of respondents. Males, non-Muslims, small ethnic groups, and urban respondents were more likely to have participated in such skills training than females, Muslims, Bangalis, and rural respondents, respectively. Respondents from male headed households were also more likely to have informal/non-formal skills training than those from female headed households.

Finally, a fourth model was developed taking the same potential explanatory variables (Table 2.21). Here, the dependent variable was 'willing to acquire skills through informal/non-formal ways'. Of the 10 likely explanatory variables, the final model considered five. The variables, according to chronology of

Table 4.20
Logistic regression model predicting participation in of informal/non-formal skills training

Explanatory variables	Regression coefficient	Odds ratio	95% CI of odds ratio	Level of significance
Age	0.015	1.015	1.012–1.017	p<0.001
Education	0.087	1.091	1.077–1.105	p<0.001
Gender: male	0.418	1.519	1.400–1.648	p<0.001
Area: Urban	0.184	1.202	1.083–1.335	p<0.001
Mothers' education	-0.053	0.949	0.934–0.964	p<0.001
Religion: non-Muslim	0.383	1.467	1.276–1.687	p<0.001
HHH: Male	0.190	1.209	1.069–1.369	p<0.01
Ethnicity: SEG	0.701	2.015	1.571–2.585	p<0.001
Household wealth	0.035	1.036	1.015–1.057	p<0.001
Constant	-1.840			p<0.001
-2 Log Likelihood	13410.267			
Cox & Snell R^2	0.057			
Nagelkerke R^2	0.076			

Source: Education Watch Skills Survey, 2016

Table 4.21
Logistic regression model predicting willingness to join in informal/non -formal skills

Explanatory variables	Regression coefficient	Odds ratio	95% CI of odds ratio	Level of significance
Age	-0.063	0.939	0.935–0.942	p<0.001
Education	0.106	1.112	1.092–1.133	p<0.001
Gender: Female	0.160	1.173	1.036–1.329	p<0.05
Religion: non-Muslim	0.308	1.361	1.110–1.668	p<0.01
Household wealth	-0.065	0.937	0.909–0.967	p<0.001
Constant	1.553			p<0.001
-2 Log Likelihood	6166.846			
Cox & Snell R^2	0.283			
Nagelkerke R^2	0.377			

Source: Education Watch skills survey, 2016

appearance in the model, are age and educational qualifications of respondents, household wealth, religion, and gender of respondent. Willingness to participate in skills training decreased with the increase of age. On the other hand, it increased with the increase of educational qualifications of respondents and household wealth. Females and Muslims were more likely to have such skills than the males and non-Muslims, respectively. Note that these five variables collectively explained 28% of the variation in willingness to acquire skills through informal/non-formal ways.

F. Salient findings

- The present survey looked at the status of participation of young people and adults in work-related skills development in three broad categories – formal TVET of longer duration of one to four years, shorter training of less than a year in a formal mode, and skills acquisition through informal and non-formal means. In respect of the total numbers of participants and the variety of skills and trades, the last category clearly is dominant. Yet, the quality, relevance, effectiveness and efficiency of the last category as well as the other two remain questionable, as the analysis shows.
- Of the respondents having at least nine years of school education, 6.5% received Technical and Vocational Education (TVET) which includes Secondary (Vocational), Higher Secondary (Vocational), Higher Secondary (Business Management), and diploma in Engineering, Agriculture, Commerce, Textiles, Fisheries, Health Technology, Nursing, Jute technology, and Forestry etc. About 9% of males and 4.2% of females had TVET ($p<0.01$), but the proportion was mostly equal for urban and rural respondents.
- Those who did not go through TVET, nearly a third of them reported that TVET did not come to their mind while taking a decision about further education beyond grade VIII. Over a quarter of the respondents (26.2%) had no idea about such education provision, 15.7% had no scope to go for such a study because it was not offered in their secondary schools, and 13.8% reported not getting any advice or encouragement from their family members to go for TVET.
- About 9% of the respondents aged 11 years and above had skills training of short duration (less than one year). Eleven percent of males and 7.4% of females ($p<0.001$), and 8.3% of rural and 12.3% of urban respondents ($p<0.001$) had this training. Males were ahead of females in both the areas. Major courses included tailoring, computer operating, agriculture and food processing.
- Of the 11 years and above respondents, 42% received skills training through informal/non-formal ways. Major training areas include agriculture and food, rural handicrafts, and tailoring. It was 48.4% among males and 36.6% among females ($p<0.001$), and 41.5% in rural and 44.5% in urban areas ($p<0.001$). Gender difference persisted in both the areas.
- More than 52% of these respondents received skills training with an expectation of additional income. However, another 20% did not cite any specific reason for this. About 22% of the training recipients reported to have ‘fully’ used their skills in occupation, 35.8% used ‘partially’ and 42.3% had ‘no use’. Use of skills in occupation increased with increase of educational qualifications of the respondents. A third of those who were unable to use their skills were employed in jobs that could not use the skills, 23.2% did not try enough to find the right job, and 15% cited health problems for not applying in their jobs the skills learned through training.
- A half of those who did not receive any skills training expressed the need for such training. No gender or urban-rural difference was observed among them. Tailoring, computer operating, cow/goat rearing, driving vehicles and electronics and electrical skills were put on the list of demand for training. Those who expressed these demands were more likely to be young, female, non-Muslims with some years of schooling and from less wealthy households.

Chapter Five

Lifelong Learning: Opportunity Practice and Challenges

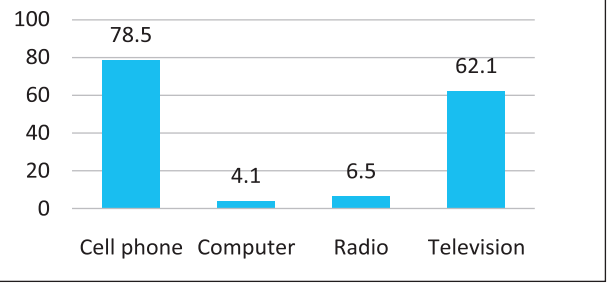
Peoples' understanding of the need for lifelong learning and demand and access to such learning opportunities are addressed in this chapter. Access to various types of information and communications technologies (ICTs) and reading materials and media are analysed considering these as important means and sources for lifelong learning. This is presented in terms of gender, residence, geography, and socioeconomic background of the sample. Finally, challenges for lifelong learning opportunities are discussed.

A. Access to ICT by gender and residence

In this study, ICT includes radio, television, cell phone, and computers. Respondents using these technology devices during the week prior to interviewing them were considered as having access to a particular technology. In other words, respondents listening to any radio programme, watching any programme on television, and using cell phones and computers for any purpose in the reference period were considered to have access to those. All who sat for the literacy assessment test, i.e., aged 11 years and over, were the eligible respondents for this purpose. The findings reveal that of these four technologies, cell phone was the most popular in terms of access, closely followed by television. Access to radio and computers was far less than the others (Figure 5.1).

Figure 5.1

Percentage of respondents having access to vatious ICTs



Source: Education Watch Access to ICTs and Reading Materials Survey, 2016

Table 5.1 gives more detailed results. Among the respondents aged 11 years and above, 78.5% had access to cell phone during the week previous to interview; 83.4% among males and 74.2% among females ($p<0.001$). It was 84.4% among urban respondents and 77.1% among rural respondents ($p<0.001$). A further analysis shows that 74.6% used ordinary cell phones and 22.7% used smart phones. Some used both types of phone in the reference period. Not all of them had their own cell phones, of course. It was reported that 53.4% of the respondents aged 11 years and above had an ordinary cell phone of their own and 14.3% had a smart phone; totalling 58.3%. This means that 20.2% of the respondents did not have their own cell phone, but they borrowed it from their relatives, neighbours or nearby shops. Females and rural respondents were less likely to have their own cell phones than their respective male and urban counterparts. Although the gender gap in access to cell phone was 9.2 percentage points, it was 24.2 percentage points in the case of having own cell phone. Over 27% of females and 12% of males used cell phones borrowing from others. This was 20.7% in rural areas and 18.2% in urban areas. Males were significantly ahead of females in both rural and urban areas in access to cell phones. Compared to about 90% among urban males, 73% of rural females had access to cell phones.

Although only 2.1% of the respondents aged 11 years and above had their own computers (desktop or laptop), an additional 4.1% had access to it during the reference period. There was a significant gender gap - compared to 6.8% of males', only 1.7% of females had access to computers ($p<0.001$). This access was 9.2% for urban and 2.9% for rural respondents ($p<0.001$). Like the cell phone users, not all the computer users had their own computers. Less than one percent of females and 3.6% of males ($p<0.001$), and 1.3% of rural and 5.9% of urban respondents had their own computers. Statistically significant gender difference favouring males was observed in access to computers in both rural and urban areas. Whereas, 14.8% of urban males had access to computers, it was only 1.1% among rural females.

Only 6.5% of the respondents aged 11 years and above listened to radio programme and 62.1% of the respondents watched programmes on television during the reference period (Table 5.1). Males were ahead of females and urban respondents surpassed their rural counterparts in both the cases. For instance, 9.2% of males and 4.1% of females listened to radio programmes (p<0.001) and 70.5% of males and 55% of females watched programmes on television (p<0.001). Residence-wise, 6% of rural and 8.9% of urban respondents listened to radio programmes (p<0.001) and 57.5% of rural and 82.2% of urban respondents watched programmes on television (p<0.001). Statistically significant gender difference was observed in both the areas in access to television and radio.

Table 5.1

Percentage of respondents having access to various ICTs by residence and gend

Residence	Gender		Both	Significanc
	Male	Female		
Access to cell phone				
Rural Bangladesh	81.9 (4,087)	73.0 (4,732)	77.1 (8,819)	p<0.001
Urban Bangladesh	89.9 (1,148)	79.7 (1,313)	84.4 (2,461)	p<0.001
Significance	p<0.001	p<0.001	p<0.001	
All Bangladesh	83.4 (5,235)	74.2 (6,045)	78.5 (11,280)	p<0.001
Access to computer				
Rural Bangladesh	4.9 (4,087)	1.1 (4,732)	2.9 (8,819)	p<0.001
Urban Bangladesh	14.8 (1,148)	4.5 (1,313)	9.3 (2,461)	p<0.001
Significance	p<0.001	p<0.001	p<0.001	
All Bangladesh	6.8 (5,235)	1.7 (6,045)	4.1 (11,280)	
Access to radio				
Rural Bangladesh	8.7 (4,087)	3.7 (4,732)	6.0 (8,819)	p<0.001
Urban Bangladesh	11.1 (1,148)	5.8 (1,313)	8.3 (2,461)	p<0.001
Significance	p<0.01	p<0.001	p<0.001	
All Bangladesh	9.2 (5,235)	4.1 (6,045)	6.5 (11,280)	
Access to television				
Rural Bangladesh	66.4 (4,087)	49.8 (4,732)	57.5 (8,819)	p<0.001
Urban Bangladesh	87.4 (1,148)	77.7 (1,313)	82.2 (2,461)	p<0.001
Significance	p<0.001	p<0.001	p<0.001	
All Bangladesh	70.4 (5,235)	55.0 (6,045)	62.1 (11,280)	

Source: Education Watch Access to ICTs and Reading Materials Survey, 2016

Table 5.2 shows the access according to strata where statistically significant variation is observed in access to each of the above four technologies. The dwellers in city corporations were the top users in each. Nearly 90% of the respondents of city corpora-tions had access to cell phones and television each, 13.8% had access to computer, and 10.9% had access to radio. Mostly an equal level of access to cell phone was observed in five strata, viz., rural Chittagong, Rajshahi, and Sylhet divisions, and the municipalities. Around 80% of the respondents of these areas had access to cell phones. Rural Khulna, Barisal, and Rangpur divisions were slightly behind them. Rural Dhaka division was at the bottom with 70.9% of the respondents having access to cell phones.

Table 5.2

Percentage of respondents having access to various ICTs by strata

Strata	Sample size	ICT materials			
		Cell phone	Compu-ter	Radio	Tele-vision
Rural Dhaka division	1,267	70.9	3.6	7.5	54.7
Rural Chittagong division	1,250	80.8	1.8	4.8	63.9
Rural Rajshahi division	1,251	81.5	3.0	8.7	64.6
Rural Khulna division	1,215	78.2	3.0	5.6	63.6
Rural Barisal division	1,351	79.0	2.8	5.0	43.4
Rural Sylhet division	1,355	80.4	3.3	4.1	47.4
Rural Rangpur division	1,230	77.5	2.0	3.7	54.9
City corporations	1,203	89.9	13.8	10.9	89.9
Municipalities	1,258	80.6	6.0	6.4	76.7
Significance		p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch Access to ICTs and Reading Materials Survey, 2016

Rural Chittagong division was at the bottom with 1.8% of the respondents having access to computer followed by rural Rangpur division with 2% of the respondents having access to it (Table 5.2). Rural Rangpur division was also at the bottom in access to radio – 3.7% of the respondents of this stratum listened to radio programme during the reference period. Proportion of respondents having access to computer and radio was less than 10% in each of the stratum except the top one.

As expected, Municipalities secured the second position in terms of access to television with 76.7% having access to it (Table 5.2). Roughly an equal proportions of respondents from rural Chittagong, Rajshahi, and Khulna divisions had access to television (around 64%). They were followed by another two rural divisions Dhaka and Rangpur – nearly 55% of the respondents of these two areas had access to television. The position of rural Barisal division was at the bottom in this respect, whereas the position of rural Sylhet division was slightly better.

Males of each of the strata were significantly ahead of females in the respective strata in access to computer, radio, and television (Annexes 5.2, 5.3, and 5.4). The same was observed in access to cell phone except in rural Barisal division (Annex 5.1), where no gender difference was observed in access to cell phone.

B. Age-specific access to ICTs

Statistically significant variation by age of respondents was observed in access to various information and communication technologies (Table 5.3). The trend of access was not similar among the adolescents and young respondents for various ICTs; however, a smooth decreasing trend was observed among those aged 30 years and above. Following are the salient features of this analysis.

- Access to cell phone, computer and radio was the highest among the respondents of age 15-19 years. However, in the case of access to television, the highest level of access was for 11-14 years group.
- Over 90% of the respondents of three age-groups, viz., 15-19, 20-24 and 25-29 years had access to cell phone which was 88.5% among those aged 30-34 years and 85.9% among those aged 11-14 years.
- Access to computer was less than 10% in each of the age-groups. The respondents of age 20-24 years had the second position in access to computer, followed by those aged 25-29 and 11-14 years, respectively.
- In case of access to radio, the respondents aged 11-14 years had the second position followed by those aged 20-24 and 25-29 years, respectively.

Table 5.3
Percentage of respondents having access to various ICTs by age group

Age (in years)	Various ICTs			
	Cell phone	Computer	Radio	Television
11 – 14	85.9	3.4	9.8	75.9
15 – 19	95.2	9.7	15.7	74.2
20 – 24	93.9	8.5	9.1	66.9
25 – 29	94.5	5.4	6.0	64.8
30 – 34	88.5	2.7	4.3	63.0
35 – 39	81.7	3.0	3.5	60.1
40 – 44	73.2	1.9	2.9	57.1
45 – 49	73.3	2.1	2.5	60.7
50 – 54	57.2	2.0	2.8	52.8
55 – 59	55.3	0.2	1.6	50.1
60 – 64	46.1	0.2	2.7	47.2
65 – 69	45.9	0.3	1.3	42.8
70 – 74	35.6	0.5	3.8	37.3
75+	16.9	0.0	1.1	26.3
All	78.5	4.1	6.5	62.1

Source: Education Watch Access to ICTs and Reading Materials Survey, 2016

- Access to television gradually decreased with the increase of age starting from the first age group (11-14 years).
- Over a quarter of respondents aged 70 years or more had access to television, nearly 17% of the same group had access to cell phone, 1.1% had access to radio, and none had access to computers.

Analysis by broader age-groups is provided in Table 5.4. The highest rate of access was observed among those aged 11-29 years in each of the four ICTs. The rates gradually decreased with the increase of age-group of respondents. Among those aged 11-29 years, the youngest group, 92.1% had access to cell phone, 71.1% had access to television, 10.6% had access to radio, and 6.7% had access to computers. A quarter of those aged 70 years and above had access to cell phone and 31.2% had access to television.

Table 5.4
Percentage of respondents having access to various ICTs by broad age-group

Age (in years)	Various ICTs			
	Cell phone	Computer	Radio	Television
11 – 29	92.1	6.7	10.6	71.1
30 – 49	80.1	2.5	3.4	60.4
50 – 69	52.2	0.8	2.2	49.1
70+	25.1	0.2	2.3	31.2
Significance	p<0.001	p<0.001	p<0.001	p<0.001
All	78.5	4.1	6.5	62.1

Source: Education Watch Access to ICTs and Reading Materials Survey, 2016

Males of each of the broad age-group were significantly advantaged compared to their female counterparts in access to cell phone, radio, and television (Annex 5.5). In case of access to computers, the same was observed among the respondents of the first two age-groups (11-29 and 30-49 years). In this case, no gender difference was observed in the rest two age-groups (50-69 and 70+ years).

Significantly more proportions of urban respondents of each of the broad age-groups had access to computers and television than their respective counterparts in rural areas (Annex 5.5). The same was observed among the respondents of the first three age-groups (<70 years) in the case of access to cell phone and among the respondents of the first age-group (11-29 years) in the case of access to radio. No urban-rural difference was observed in rest of the cases.

C. Education and access to ICT

Educational qualifications of the respondents was cross-tabulated with their access to various ICTs. In general, access to each of the four technologies significantly increased with the increase of educational qualifications (Table 5.5). Nearly half of the respondents without a single year of schooling had access to cell phone which was 77.9% among those with 1-4 years of schooling, 90.2% among those with 5-7 years of schooling, 96.3% among those with 8-9 years of schooling, and 97.8% among those who had 10 or more years of schooling (p<0.001). The figures for access to television were 45.1, 59.6, 67.2, 72.8 and 79.1%, respectively for those having zero, 1-4, 5-7, 8-9 and 10+ years of schooling (p<0.001). Access to computer was 5% or below for those having less than 10 years of schooling and 18.5% of those who had 10 or more years of schooling. Access to radio was below 5% for those who had less than five years of schooling, it was below 10% for those who had less than 10 years of schooling, and 14.6% of the respondents with 10 or more years of schooling had access to radio.

Two different scenarios were observed among the respondents who had less than 10 years of schooling and those with 10 or more years of schooling. The highest proportions of respondents who had access to cell phone and television were respectively from these two groups. For the first group, the above was

followed by radio and computer, respectively; but a reverse situation was observed for the second group. Of the respondents having 10 or more years of schooling, 97.8% had access to cell phone, 79.1% had access to television, 18.5% had access to computer, and 14.6% had access to radio.

Gender and residence-wise analysis of the above are provided in Annexes 5.6 and 5.7. In most of the cases, males were ahead of females and urban respondents were ahead of their rural counterparts. No difference (gender or residence-wise) was observed in access to cell phone among those who had eight or more years of schooling.

Table 5.5
Percentage of respondents having access to various ICTs by level of education

Education	Various ICT			
	Cell phone	Computer	Radio	Television
Nil	49.5	0.1	1.6	45.1
I - IV	77.9	0.5	4.4	59.6
V - VII	90.2	2.1	6.9	67.2
VIII _ IX	96.3	5.0	9.7	72.8
X +	97.8	18.5	14.6	79.1
Significance	p<0.001	p<0.001	p<0.001	p<0.001
All	78.5	4.1	6.5	62.1

Source: Education Watch Access to ICTs and Reading Materials Survey, 2016

D. Use of cell phone and computer

The respondents having access to cell phones and computers were asked to mention the use of those information technologies during the reference period. A total of 11 types of use were identified (Table 5.6), with multiple responses. All the respondents having access to cell phones used this technology for talking with other persons. In addition, over 55% of the respondents used cell phones for listening to music and/or watching movies, over a third used it to listen to Islamic preaching (*Waaz*), another third used it for photography and/or for making videos, 30.6% used it to play games, 15.4% for Internet browsing, and 10.2% for sending text messages (SMS or Short Messaging Service) or chatting. Less than 10% of the respondents used the cell phone for listening to radio programmes, for study purposes, money transfer or mobile banking, and writing/keeping notes related to their job.

A clear gender difference was evident in the use of cell phones (Table 5.6), with males using it more often than females. Gender gap was less marked in case of listening to *Waaz* and photography and/or making videos. Urban respondents were ahead of their rural respondents in most of the uses except listening to *Waaz*, in which case the rural respondents were

Table 5.6
Percentage of respondents having access to cell phone by use of it, gender and residence

	Gender		Residence		All
	Male	Female	Rural	Urban	
Talk	100.0	100.0	100.0	100.0	100.0
SMS/chat	11.8	8.6	8.9	15.5	10.2
Internet browse	22.1	8.8	13.4	22.9	15.4
Game	35.7	25.7	29.6	34.7	30.6
Study purpose	6.3	4.1	5.0	6.0	5.2
Occupational writing	2.3	0.6	1.2	2.4	1.4
Listening music, watching movie etc.	60.4	50.7	55.1	57.0	55.4
Listening Islamic preach (*waaz*)	35.9	31.8	34.9	29.7	33.8
Listening radio programme	9.7	4.9	6.5	10.0	7.2
Photography, video	35.4	28.9	30.3	39.1	32.1
Money transfer, mobile banking	7.1	2.4	4.1	7.0	4.7

Multiple responses counted
Source: Education Watch Access to ICTs and Reading Materials Survey, 2016

ahead of their urban counterparts (Table 5.6). The proportions of respondents listening to music and/or watching movies were also found to be very close between rural and urban areas.

Table 5.7
Percentage of respondents having access to computer by gender and residence

	Gender		Residence		All
	Male	Female	Rural	Urban	
Talk	1.7	1.9	2.0	1.7	1.8
SMS/chatting	4.2	3.8	2.0	7.0	4.1
Internet browsing	50.9	30.5	38.8	55.9	46.2
Games	31.2	24.8	26.7	33.3	29.7
Study purposes	17.6	21.9	21.2	15.3	18.6
Occupational writing	54.0	43.8	46.0	59.2	51.6
Listening music, watching movie etc.	69.4	64.8	68.1	69.0	68.3
Listening toWaaz	4.3	1.0	3.6	3.1	3.5
Listening radio programmes	0.3	0.0	0.4	0.0	0.2
Photography, video	9.4	14.3	11.6	9.6	10.5
Money transfer, mobile banking	1.4	0.0	0.4	1.7	1.1

Multiple responses counted
Source: Education Watch Access to ICTs and Reading Materials Survey, 2016

The highest proportion of the respondents used computers for listening music and/or watching movies (68.3%) (Table 5.7). Writing/keeping notes related to job was the second top use of computers and Internet browsing was the third highest use. Nearly 52% of the respondents used computers for job-related writing and 46.2% used it for Internet browsing. About 30% of the respondents used computers for playing games, 18.6% used it for study purposes, and 10.5% used it for photography and/or making videos. A small proportion of respondents (less than 5%) used computers for sending SMS or chatting, listening to *Waaz*, money transferring or banking, and for listening to radio programmes. Of the major use of computers, males were ahead of females in Internet browsing, playing games, job-related writing, and listening to music and/or watching movies. On the other hand, females were ahead of males in using computers for study purposes and photography and/or making videos. The urban respondents were ahead of rural respondents in using computers for Internet browsing, playing games, and occupation-related writing. On the other hand, rural respondents were ahead of their urban counterparts in using computers for study purposes and photography and/or making videos. No difference between urban and rural areas was observed in use of computers for listening to music and/or watching movies.

The highest proportion occurred among those aged 11-29 years in the use of cell phones which then significantly decreased with the increase of age of the respondents (Annex 5.8). There were two exceptions though - one was talking and the other was listening to *Waaz.* The first one occurred for all users; therefore no variation was found. Listening to *Waaz* was highest among those aged 30-49 years followed by those aged 11-29, 50-75 and 75+ years, respectively.

Statistically significant variation by age in use of computers was found in three cases only (Annex 5.9). Of them, the highest proportion of respondents playing games and listening music and/or watching movies occurred among those aged 11-29 years which gradually decreased with the increase of age. Job-related writing was highest among those aged 30-49 years, followed by those aged 50-75 years and 11-29 years, respectively.

Internet browsing

Although 12.4% of the respondents aged 11 years and above reported that they had opportunity of the Internet browsing during their lifetime, 9.6% reported that they did so during the week prior to interviewing

them which was the reference period as defined in this study. Gender and residence-wise segregation for the first information shows that a fifth of urban and a tenth of rural respondents used the Internet browsing during their lifetime. This was about a fifth for males and 6.7% for females.

Table 5.8 shows that of those who used the Internet during the week before the interview, 17.1% were among urban respondents and 7.8% among rural respondents (p<0.001). Over 15% of males and 4.8% of females used the Internet during the reference period (p<0.001). Statistically significant gender difference was found in both the areas where males were much ahead of females. Over a fifth of the urban males and 3.7% of the rural females used the technology during the week prior to interview.

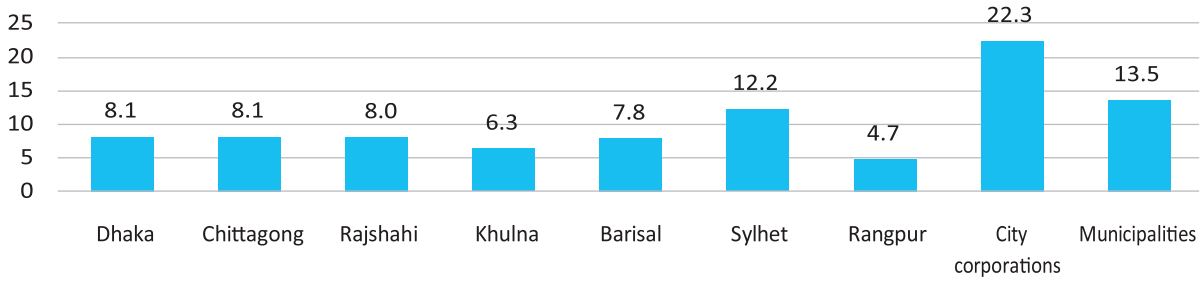
Table 5.8
Percentage of respondents browsed the Internet during the reference week who by residence and gender

Residence	Gender		Both	Significance
	Male	Female		
Rural Bangladesh	12.6 (4,087)	3.7 (4,732)	7.8 (8,819)	p<0.001
Urban Bangladesh	25.5 (1,148)	9.8 (1,313)	17.1 (2,461)	p<0.001
Significance	p<0.001	p<0.001	p<0.001	
All Bangladesh	15.1 (5,235)	4.8 (6,045)	9.6 (11,280)	p<0.001

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Stratum-wise, statistically significant variation in the Internet use was observed where the respondents of city corporations were at the top and the respondents of rural Rangpur division were at the bottom (Figure 5.2). The rates were 22.3% and 4.7%, respectively. The municipalities were at the second position with 13.5% of the respondents using the Internet and the rural Sylhet division was at the third position, slightly behind the municipalities. Among others, rural Dhaka, Chittagong, Rajshahi, and Barisal divisions were close to each other with around 8% of the respondents using the Internet. This was 6.3% among the respondents of rural Khulna division. Highly significant gender difference in the Internet use was observed in each of the stratum (Annex 5.10). Females lagged much behind their male counterparts in the Internet use. Male-female difference was 18.4 percentage points in the city corporations, the top ranking stratum. Statistically significant variation by stratum was also noticed among males and females separately. Of the 16 sub-groups of respondents (8 strata x 2 gender), the males of the city corporations were the most frequent users of the Internet (about 32%) and the females of rural Rangpur division were the least users (1.1%). The rate of users did not go beyond 5% among the females of six rural divisions. These are Dhaka, Chittagong, Rajshahi, Khulna, Barisal, and Rangpur.

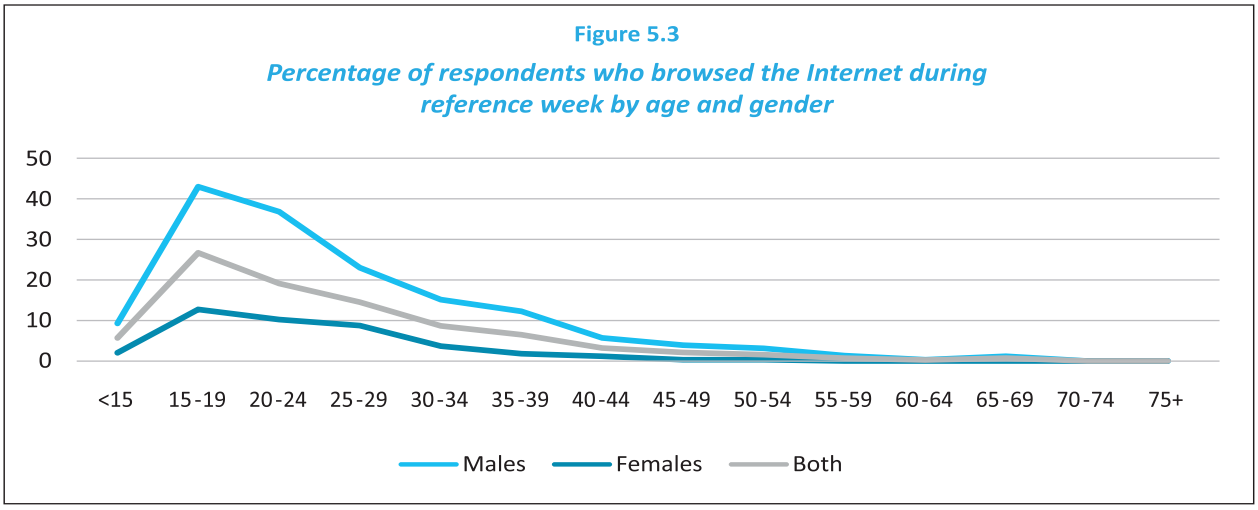
Figure 5.2
Percentage of respondnets who browsed the Internet during the reference week by strata



Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Figure 5.3

Percentage of respondents who browsed the Internet during reference week by age and gender



Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Age-specific analysis shows that the highest proportion of the Internet users were aged 15-19 years (Figure 5.3). Over a quarter of these respondents (26.7%) used the Internet during the week prior to the interview. They were followed by those aged 20-24 years (19.2%) and 25-29 years (14.5%), respectively. The rate then gradually decreased with the increase of age of the respondents. Except the above mentioned three age-groups, user rate of all other groups was below 10%. User rate was 16.6% when the above three groups were pooled, 5.5% for those aged 30-49 years, below 1% for those 50-69 years and nil for those aged 70 years or more. None of the females of age more than 54 years and none of the males of age over 69 years browsed the Internet during the reference period.

Educational qualifications of the respondents had a strong and positive relationship with the Internet use. Of the Internet users, 30.6% had 12 or more years of schooling, 28% had 10 years of schooling, 20.6% had 8-9 years of schooling, 15% had 5-7 years of schooling, and 5.8% had 0-4 years of schooling. Almost none of the never schooled respondents used the Internet.

Percentage of respondents using the Internet significantly increased with the increase of years of schooling of the respondents ($p<0.001$). On average, 44.7% of the respondents with 12 or more years of schooling used the Internet during the reference period, this was 32% among those who had 10 years of schooling, 14.3% among those with 8-9 years of schooling, 6.2% among those with 5-7 years of schooling, and 1.2% among those who had less than five years of schooling (Table 5.9). A similar trend was observed when data were separately analysed for males and females and for rural and urban respondents. With 12 or more years of schooling, 52% of males and 34.5% of females, and 36.7% of rural and 58.8% of urban respondents used the Internet during the reference period.

Table 5.9

Percentage of the Internet browsers by educational qualifications, gender and residence

Education	Gender		Residence		All
	Male	Female	Rural	Urban	
Nil–IV	2.3	0.1	1.0	2.2	1.2
V–VII	11.3	2.4	5.6	9.2	6.2
VIII–IX	26.3	5.8	13.2	18.5	14.3
X	44.6	19.6	29.5	40.3	32.0
XII+	52.0	34.5	36.7	58.8	44.7
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch Access to ICTs and Reading Materials Survey, 2016

What did the respondents browse? As expected, multiple responses came forth. There were eight uses of the Internet (Table 5.10). Use of social media through the Internet came out at the top with 88.7% of the Internet users engaging in this. This was at the top irrespective of gender and residence. The Internet use for entertainment came out as the distant second with 42.5% of the respondents claiming this use. A third of the respondents used the Internet for searching day-to-day news in general, 30.6% browsed for sports news, 23.9% browsed for educational purposes, 11.8% for job searching, and 10.1% for sending and/or receiving e-mails. A small portion of the Internet browsers used this technology for knowing about share-market information which mostly involved the urban males.

Females were ahead of males in having their presence in social media than their male counterparts (Table 5.10). However, males were ahead of females in browsing day-to-day news in general, sports news, educational contents, and for email. Mostly an equal proportion of males and females used the Internet for entertainment purpose and job searching. On the other hand, urban respondents were ahead of their rural counterparts in having presence in social media, and browsing educational contents, share market information, and email. Residence-wise, largely equal use was observed in four items. These are browsing for day-to-day news in general, sports news, entertainment, and searching for job.

The proportion of respondents checking emails which also includes sending and browsing day-to-day news in general increased with the increase of age of the respondents. Browsing sports news and having presence in social media had an inverse U-shaped relationship with age of the respondents (Table 5.11). Respondents aged 20-14 years were at the top in both the cases. Browsing educational contents through using the Internet was highest among those aged 15-19 years – a third of them browsed educational contents. About a fifth of those aged 11-14 years also did so. It was about 18% among the respondents of other age-groups. Mostly an equal proportion of respondents (around 48%) of the first three age groups (11-14, 15-19 and 20-24 years) used the Internet for entertainment which gradually decreased with increase of age. None of the respondents of age 11-14 years used the Internet for searching jobs. The proportion of

Table 5.10

Percentage of the Internet browsers by type of items they browsed, gender and residence

Information type	Gender		Residence		All
	Male	Female	Rural	Urban	
Social media	87.8	91.1	87.1	91.8	88.7
Entertainment	42.5	42.3	41.9	43.6	42.5
General news	37.5	22.8	34.0	32.6	33.5
Sports news	36.3	15.2	30.7	30.4	30.6
Educational	25.1	20.6	22.2	27.1	23.9
Job searching	11.7	12.2	11.7	12.1	11.8
email	11.8	5.6	7.9	14.5	10.1
Share market	1.6	0.4	0.7	2.3	1.3

Multiple responses counted

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Table 5.11

Percentage of the Internet browsers by type of items they browsed and age-group

Information type	Age-group				
	11-14y	15-19y	20-24y	25-29y	30y+
Social media	79.7	89.4	90.0	89.4	89.0
Entertainment	47.2	48.1	47.7	36.4	29.6
General news	21.2	30.3	33.0	37.5	41.8
Sports news	23.5	34.5	37.2	29.7	20.3
Educational	19.8	32.8	18.0	18.2	18.5
Job searching	0.0	9.2	18.2	20.0	9.3
email	1.6	5.6	14.3	14.5	14.8
Share market	0.0	0.7	1.8	0.4	3.0

Multiple responses counted

Source: Education Watch Access to ICTs and Reading Materials Survey, 2016

respondents using the Internet for this particular purpose was 9.2% among those aged 15-19 years which increased to 18.2% for age 20-24 years and 20% for age 25-29 years. The rate then dropped to 9.3% among the respondents aged 30 years or more.

Various use of the Internet was cross-tabulated with the respondents' years of schooling completed (Table 5.12). Except for the use in case of social media, each kind of use significantly increased with the increase of years of schooling. Presence of respondents in various social media was highest in each sub-group of educational qualifications. In other words, proportions of respondents used social media irrespective of their educational qualifications.

Table 5.12
Percentage of the Internet browsers by type of items they browsed and educational qualification

Information type	Educational qualification				
	Nil-IV	V-VII	VIII-IX	X	XII+
Social media	85.6	87.9	86.0	91.1	89.3
Entertainment	27.7	36.0	38.5	45.9	45.0
General news	21.2	24.5	28.3	31.7	45.3
Sports news	9.3	28.0	29.5	33.5	33.8
Educational	4.6	7.8	22.9	28.5	31.7
Job searching	0.0	1.5	2.4	10.7	26.5
email	0.0	0.9	2.3	7.8	24.0
Share market	0.0	0.0	0.0	1.8	2.5

Multiple responses counted
Source: Education Watch Access to ICTs and Reading Materials Survey, 2016

E. Parental education, household economy and access to ICTs

Statistically significant variation in access to information and communication technologies was observed in terms of respondents' parental educational qualifications. Access to each of the four technologies increased with the increase of mothers' and fathers' educational qualifications (Tables 5.13 and 5.14). For each of the technologies, a big difference in access was evident from the respondents with never-schooled parents to the respondents having parents with incomplete primary education. Similar level of difference in access to computer, radio and television was also observed between respondents having parents with 5-9 years of schooling and 10 or more years of schooling. No such difference was observed in access to cell phone, though. With mothers having 10 or more years schooling, 95.6% of the respondents had access to cell phone, 25.4% had access to computer, 16.7% had access to radio, and 84.6% had access to television. For similar levels of fathers' education, these rates were 91.6, 15, 11.2 and 76.3%, respectively.

Statistically significant increase in terms of yearly food security status of households was evident in access to three of the four technologies (Table 5.15). These are cell phone, computer, and television. No such tendency was seen in the case of access to radio. Increase in access was huge from 'always in deficit' household to 'sometimes in deficit' households and again from 'breakeven' to 'surplus' households. Among the respondents from 'surplus' households, 83% had access to cell phone, 70.1% had access to television, 7% had access to radio, and 6% had access to computers. These rates were 66.1, 42.5, 5, and 3.2%, respectively for the respondents of 'always in deficit' households.

Similar analyses segregating data by gender and residence are provided in Annexes 5.11 to 5.22. These also show, in most cases, significant increase in access to ICTs with increase in parental education and

Table 5.13
Percentage of respondents having access to various ICTs by mothers' education

Mothers' education	Various ICTs			
	Cell phone	Compu-ter	Radio	Tele-vision
Nil	71.9	1.6	4.4	57.6
Classes I – IV	89.4	4.4	10.0	66.6
Classes V – IX	93.5	9.4	10.1	74.7
Classes X+	95.4	25.4	16.7	84.6
Significance	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

improvement of yearly food security status. However, no variation was observed in access to radio in terms of change in food security status of households (Annex 5.21)

Percentage of respondents having access to various information and communication technologies were cross-tabulated with wealth ranks of their households. The findings reveal that access to each of the ICTs (cell phone, radio, the Internet, radio and television) significantly increased with the increase in wealth ranking of households (Table 5.16). Among the respondents belonging to the 'poorest' households 69.8% had access to cell phone, 47.7% had access to television, 4.4% had access to radio, 3% browsed the Internet, and 1.4% had access to computer. These figures were 84.4, 77, 8.5, 18.8, and 10.6%, respectively among those belonging to 'richest' households.

F. Access to reading materials

Three categories of reading materials were considered - newspapers, literary books, and religious books. Daily newspapers and weekly/monthly magazines were considered as newspapers. Literary books included books containing stories, novels, drama, poetry, life sketches, science, and general knowledge. Religious books included texts on any religion and their explanations. Respondents reading any of those within the previous seven days of interviewing were considered having access to that particular category of reading material.

Figure 5.4 shows the results. Following the above definition it is estimated that 14.3% of the respondents aged 11 years or above had access to newspapers, 16.4% had access to literary books, and 13.9% had access to religious books. Males were significantly ahead of the females in access to newspapers and literary books; however, the gender-gap was much higher in access to newspapers than that in literary books (Table 5.17). Nearly 23% of males and 7.1% of females had access to newspapers and 17.5% of males and 15.3% of females had access to literary books. The gender-gap was 15.7 percentage points in access to newspapers and 2.2 percentage points in access to literary books. On the other hand, females had more access to religious books than males. Fifteen percent of females and 12.7% of males had access to religious books.

Table 5.14
Percentage of respondents having access to various ICTs by fathers' education

Fathers' education	Various ICTs			
	Cell phone	Compu-ter	Radio	Tele-vision
Nil	70.4	1.8	4.5	57.1
Classes I – IV	89.6	3.1	9.1	65.9
Classes V – IX	89.6	5.7	8.5	69.2
Classes X+	91.6	15.0	11.2	76.3
Significance	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Table 5.15
Percentage of respondents having access to various ICTs by yearly food security status of households

Food security status	Various ICTs			
	Cell phone	Compu-ter	Radio	Tele-vision
Always in deficit	66.1	3.2	5.0	42.5
Sometimes in deficit	75.5	2.3	5.9	56.0
Breakeven	77.1	3.2	6.4	60.0
Surplus	83.0	6.0	7.0	70.1
Significance	p<0.001	p<0.001	ns	p<0.001

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Table 5.16
Percentage of respondents having access to various ICTs by wealth ranking of households

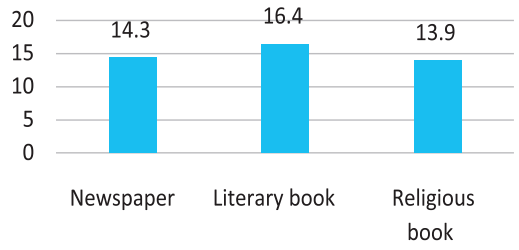
Wealth ranking	Various ICTs				
	Cell phone	Compu-ter	Internet browsing	Radio	Tele-vision
Poorest (20%)	69.8	1.4	3.0	4.4	47.7
Poor (20%)	76.3	1.8	6.4	5.1	54.0
Middle (20%)	80.0	3.0	9.1	7.0	63.0
Rich (20%)	82.6	5.1	12.5	7.6	70.5
Richest (20%)	84.4	10.6	18.8	8.5	77.0
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Urban-rural difference also persisted in each of the three types of reading materials in which urban respondents were more advantaged than their rural counterparts (Table 5.17). Residence-wise gap was 11.2 percentage points in access to newspapers (urban 23.4% versus rural 12.2%), 4.5 percentage points in access to literary books (urban 20% versus rural 15.5%), and 1.7 percentage points in access to religious books (urban 15.3% versus rural 13.6%).

Figure 5.4

Percentage of respondents having access to various reading materials



Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Gender difference disfavouring females in access to newspapers was observed in both rural and urban areas (Table 5.17). However, the gender-gap was much higher in urban areas than that in rural areas (19.4 and 14.8 percentage points, respectively). Over a third of males and 14.4% of females in urban areas and a fifth of males and 5.4% of females in rural areas had access to newspapers. No gender difference was observed in urban areas in access to literary books (21.3% versus 18.9%; ns), but rural males were ahead of their female counterparts with a significant margin (16.7% versus 14.5%; p<0.01). On the other hand, females were ahead of males in access to religious books in both rural and urban areas. The gender-gap in access to religious books was wider in urban areas than in rural areas.

Stratum-wise, statistically significant variation in access to the types of reading materials was observed (Table 5.18). Respondents of the city corporations had the highest access to newspapers and those in rural Rangpur division had the least. Gap between them was 21.4 percentage points (30% versus 8.6%, respectively). Municipalities and the rural Sylhet division followed the city corporations keeping them mostly behind the cities. Over 18% of the respondents of these two strata had access to newspapers. The rate of access to newspapers in rural Rajshahi division was about 16%, it was 13% in each of rural Chittagong and Barisal divisions, 11.4% in rural Khulna division, and 10% in rural Dhaka division. Males had significantly higher access rate than females in each of the strata (Annex 5.23).

Table 5.17

Percentage of respondents having access to various reading materials by gender and residence

Strata	Gender		Both	Significance
	Male	Female		
Newspaper				
Rural Bangladesh	20.2 (4,087)	5.4 (4,732)	12.2 (8,819)	p<0.001
Urban Bangladesh	33.8 (1,148)	14.4 (1,313)	23.4 (2,461)	p<0.001
Significance	p<0.001	p<0.001	p<0.001	
All Bangladesh	22.8 (5,235)	7.1 (6,045)	14.3 (11,280)	p<0.001
Literary book				
Rural Bangladesh	16.7 (4,087)	14.5 (4,732)	15.5 (8,819)	p<0.01
Urban Bangladesh	21.3 (1,148)	18.9 (1,313)	20.0 (2,461)	ns
Significance	p<0.001	p<0.001	p<0.001	
All Bangladesh	17.5 (5,235)	15.3 (6,045)	16.4 (11,280)	p<0.01
Religious book				
Rural Bangladesh	12.8 (4,087)	14.2 (4,732)	13.6 (8,819)	p<0.05
Urban Bangladesh	12.1 (1,148)	18.1 (1,313)	15.3 (2,461)	p<0.001
Significance	ns	p<0.001	p<0.001	
All Bangladesh	12.7 (5,235)	15.0 (6,045)	13.9 (11,280)	p<0.001

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Almost an equal proportion of respondents (around a fifth) had access to literary books in four of the strata which are city corporations, municipalities, and rural Barisal and Sylhet divisions (Table 5.18). This rate was 17.1% in rural Rajshahi division and around 15% in rural Rangpur and Dhaka divisions. An equal proportion of respondents of rural Chittagong and Khulna divisions had access to this (13.3%). Statistically significant gender difference in access to literacy books was observed only in two strata (Annex 5.24). These are rural Chittagong and Sylhet divisions. Males were ahead of females in both.

Table 5.18
Percentage of respondents having access to various reading materials by strata

Strata	Sample size	Reading materials		
		News-papers	Literary books	Religious books
Rural Dhaka division	1,267	10.0	14.9	10.6
Rural Chittagong division	1,250	13.0	13.3	14.7
Rural Rajshahi division	1,251	15.9	17.1	19.3
Rural Khulna division	1,215	11.4	13.3	12.1
Rural Barisal division	1,351	13.0	20.9	18.1
Rural Sylhet division	1,355	18.5	19.3	13.2
Rural Rangpur division	1,230	8.6	15.4	12.2
City corporations	1,203	30.0	20.7	15.9
Municipalities	1,258	18.8	19.6	14.9
Significance		p<0.001	p<0.001	p<0.001

Source: Education Watch Access to ICTs and Reading Materials Survey, 2016

Respondents in rural Rajshahi division had the highest access to religious books followed by rural Barisal division and the city corporations (Table 5.18). Proportion of respondents having access to religious books was 19.3, 18.1 and 15.9%, respectively in these three strata. The access rate was nearly 15% in each of municipalities and rural Chittagong division. It was 12-13% in each of rural Khulna, Sylhet and Rangpur divisions, and 10.6% in rural Dhaka division. Statistically significant gender difference persisted in three strata where the females were ahead of males in each (Annex 5.25). The strata are rural Barisal division, city corporations, and municipalities.

Excluding the religious books, it was observed that 6.3% of the respondents read only newspapers during the reference period, 8.3% read only literary books, and 8% read both. This means that 77.4% of the respondents did not read any of newspapers or literary books. A further look at the data reveals a gulf of difference between those who read religious books and who did not. Sixty-five percent of the former group of respondents read newspapers or literary books compared to 15.8% of the latter group.

G. Age-specific access to reading materials

Access to various reading materials significantly varied by age (Annex 5.26). Access to newspapers was highest among those aged 15-19 years (26.5%). These young people read newspapers at least once during the reference period. The rate then gradually dropped to 11.8% among those aged 45-49 years. An erratic trend in the rate was observed afterwards.

Access to literary books was also highest among those aged 15-19 years followed by those aged 11-14 years (Annex 5.26). The proportions were close to each other – 36.8% and 35.2%, respectively. This suddenly

Table 5.19
Percentage of respondents having access to various reading materials by broad age-group

Age (in years)	Reading materials type		
	News-papers	Literary books	Religious books
11 – 29	18.3	28.3	16.3
30 – 49	13.1	8.1	12.7
50 – 69	8.5	3.4	10.6
70+	4.2	1.3	10.1
Significance	p<0.001	p<0.001	p<0.001
All	14.3	16.3	13.9

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

dropped to 19.8% among those aged 20-24 years and then gradually decreased with the increase of age. Reading religious books was highest among those aged 20-24 years; over a fifth of the respondents belonging to this age-group had access to religious books. They were closely followed by those aged 15-19 and 25-29 years. Overall, no smooth trend was observed in this. The rate of access decreased gradually up to age 40-44 years and then increased gradually.

Broad age-group-wise analysis shows a decreasing trend in access to each kind of reading materials with the increase of age (Table 5.19). Highest proportion of the respondents of age 11-29 years had access to each of the three reading materials. Of them, 28.3% had access to literary books, 18.3% had access to newspapers, and 16.3% had access to religious books. The rate of decrease was much slower in the case of religious books compared to the other two.

H. Education and access to reading materials

As expected, a negligible portion (0.1%) of the never-schooled respondents accessed any of the three types of reading materials (Table 5.20). Access significantly increased with the increase of educational qualifications of the respondents ($p<0.001$). Among the respondents completing 1-7 years of schooling, proportionately more of them read literary books, followed by religious books and newspapers, respectively. Equal proportion of respondents completing 8-9 years of schooling read literary and religious books (over 27% each), followed by newspapers (23.7%). On the other hand, reading newspapers was the first choice for those having 10 or more years of schooling; nearly half of them (49%) read newspapers during the reference period. Their second choice was reading literary books – 41.7% read this. A third of the respondents having 10 or more years of schooling read religious books during the reference period.

Gender-wise analysis of the above is provided in Annex 5.27 and residence-wise analysis in Annex 5.28. Similar to the aggregated level analysis, gender and residence-wise analyses also showed statistically significant increase in access to reading materials with the increase of educational qualifications of the respondents. In general, gap between male and female and between rural and urban areas increased with the increase of educational qualifications of the respondents. For instance, gender-gap was 4.6 percentage points for those who have not completed primary education which increased to 17.8 percentage points for those having 5-7 years of schooling, 32.7 percentage points for those having 8-9 years of schooling, and 33.9 percentage points for those having 10 or more years of schooling (Annex 5.27). With 10 or more years of schooling, males were 33.9 percentage points ahead of females in reading newspapers, 4.9 percentage points ahead in reading literary books, but 8.6 percentage points behind in reading religious books. Urban respondents with 10 or more years of schooling were 14.9 percentage points ahead of their rural counterparts in reading newspapers, 2.8 percentage points in reading literary books, but 7.6 percentage points behind in reading religious books (Annex 5.28).

Table 5.20

Percentage of respondents having access to various reading materials by educational qualification

Educational qualification	Reading materials type		
	News-papers	Literary books	Religious books
Nil	0.1	0.1	0.1
I – IV	3.5	6.1	4.8
V – VII	13.0	21.9	17.7
VIII – IX	23.7	27.7	27.4
X+	49.0	41.7	33.7
Significance	p<0.001	p<0.001	p<0.001
All	14.3	16.3	13.9

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

I. Sources of reading materials

The respondents were asked about the sources of their reading materials. They were allowed to mention at most three sources. Most (79.2%) of the newspaper readers got it from a single source, 18.5% from two sources, and 2.3% from three sources. On the other hand, 64% of the literary book readers got it from a single source, 30% from two sources, and 6% from three sources.

The highest proportion of newspaper readers read it from nearby shops or in market places (bazars) (Table 5.21). They comprise 50.8% of the newspaper readers. Nearly a fifth of the newspaper readers subscribed it at home, 17.4% borrowed it from friends, relatives or neighbours, 16.8% read the Internet version of newspapers, 9.8% read it in office, and 7.8% in the library. Females were ahead of males in reading newspapers subscribed at home, borrowing from friends, relatives or neighbours, and from the libraries. On the other hand, males were ahead of females in accessing newspapers from the shops and in office. No gender difference was observed in reading the Internet version of newspapers. Urban respondents were ahead of their rural counterparts in reading newspapers subscribing at home, at office, and from the Internet. Rural respondents were ahead of the urban respondents in reading newspapers from the shops near their homes or in bazars. Borrowing newspapers from friends, neighbours and relatives was largely equal in both the areas. In general, majority of males and the rural respondents got access to newspapers from the shops nearby their homes or in bazars. Females, in general, got access to it subscribing at home and borrowing from friends, relatives and neighbours. Urban respondents, in general, got access to newspapers by subscribing at home and/or from shops.

Table 5.21
Percentage distribution of the newspaper readers by sources of newspaper, gender and residence

Sources of newspapers	Gender		Residence		All
	Male	Female	Rural	Urban	
Subscribed at home	12.9	38.8	13.6	33.7	19.8
Borrowing from friends, relatives or neighbours	8.9	40.9	17.9	16.3	17.4
At shop, bazar	67.0	5.8	57.9	34.7	50.8
In the library	6.0	12.8	7.9	7.5	7.8
At office	11.6	3.2	7.9	12.8	9.4
In Internet	16.9	16.5	14.7	21.7	16.8
others	1.2	1.6	1.8	0.1	1.3

Multiple responses counted
Source: Education Watch Access to ICT and Reading Materials Survey, 2016

A majority of the literary books readers got access to those through buying the books (55.7%) (Table 5.22). The second top source of literary books was borrowing from friends, relatives and neighbours (38.7%). Nearly 23% of the readers got access to literary books from the libraries, about 21% from the household members, and 7.2% from the Internet. Proportionately more males than females read books through buying them and a reverse scenario was observed in case of borrowing from household

Table 5.22
Percentage distribution of literary book readers by sources, gender and residence

Sources of literary books	Gender		Residence		All
	Male	Female	Rural	Urban	
Buy myself	60.4	45.9	54.6	58.8	55.7
Household members	14.1	35.6	17.9	28.9	20.9
Friends, relatives, neighbours, colleagues	38.1	40.0	40.1	35.1	38.7
Library	22.3	24.3	24.6	18.5	22.9
Internet	8.0	5.6	5.7	11.3	7.2
others	1.6	1.1	1.7	0.9	1.5

Multiple responses counted
Source: Education Watch Access to ICT and Reading Materials Survey, 2016

members. Females were marginally ahead of males in borrowing literary books from friends, relatives and neighbours and from the libraries. On the other hand, proportionately more males read e-books than females. Urban respondents were ahead of their rural counterparts in getting access to books through buying and from their household members. On the other hand, an opposite scenario was seen in borrowing books from friends, relatives and neighbours. A much higher proportion of urban readers read e-books than those in rural areas. It was interesting to observe that unlike reading newspapers, majority of the literary book readers read those buying by themselves irrespective of gender and residence.

Sources of newspapers and literary books were cross-tabulated with educational qualifications of the respondents (Annexes 5.29 and 5.30). Reading newspapers subscribing at home, at office and from the Internet increased with the increase of educational qualification of respondents. On the other hand, reading newspapers at shops nearby homes or bazars decreased with the increase of educational qualifications of respondents.

Buying literary books, getting those from household members, borrowing from friends, relatives and neighbours, and from the Internet increased with the increase of educational qualifications of the respondents. However, reading books from the library decreased with the increase of level of education.

J. Parental education, household economy and access to reading materials

Respondents' access to newspapers, literary books and religious books significantly increased with the increase of their parental education (Tables 5.23 and 5.24). Around 10% of the respondents with never-schooled mothers had access to the above reading materials. A similar result was also observed for the respondents with never-schooled fathers. With mothers having 10 or more years of schooling, 42.3% of the respondents had access to newspapers, 53.1% had access to literary books, and 20.4% had access to religious books. These figures were 33, 32 and 23.6%, respectively if the fathers had similar level of education.

Although a statistically significant variation in access to each of the reading materials was observed in terms of yearly food security status of households, no smooth trend was noticed (Table 5.25). The access rate decreased from 'always in deficit' households to 'sometimes in deficit' households. And then it increased gradually. If the respondents were from 'always in deficit' households, 10.5% of them had access to newspapers, 14.9% had access to literary books and 15.1% had access to religious books. On the other hand, if the respondents belonged to 'surplus' households, 19.3% had access to newspapers, 19.9% had access to literary books, and 18.1% had access to religious books.

The above analyses segregating data by gender and residence are provided in Annexes 5.31 to 5.39. These

Table 5.23

Percentage of respondents having access to various reading materials by mothers' education

Mothers education	Reading materials		
	News-papers	Literary books	Religious books
Nil	9.3	9.3	10.4
Classes I – IV	18.7	22.8	18.5
Classes V – IX	26.2	32.3	22.8
Classes X+	42.3	53.1	20.4
Significance	p<0.001	p<0.001	p<0.001

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Table 5.24

Percentage of respondents having access to various reading materials by fathers' education

Fathers education	Reading materials		
	News-papers	Literary books	Religious books
Nil	8.3	10.2	9.0
Classes I – IV	18.1	21.4	18.1
Classes V – IX	21.2	24.7	20.6
Classes X+	33.0	32.0	23.6
Significance	p<0.001	p<0.001	p<0.001

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Table 5.25
Percentage of respondents with access to reading materials by yearly food security status of households

Food security status	Reading materials		
	News-papers	Literary books	Religious books
Always in deficit	10.5	14.9	15.1
Sometimes in deficit	9.1	12.7	9.6
Breakeven	12.7	15.1	12.0
Surplus	19.3	19.9	18.1
Significance	p<0.001	p<0.001	p<0.001

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Table 5.26
Percentage of respondents with access to reading materials by wealth ranking of households

Wealth ranking	Reading materials		
	Newspapers	Literary books	Religious books
Poorest (20%)	7.0	10.6	8.1
Poor (20%)	9.4	12.3	10.6
Middle (20%)	13.6	15.8	14.0
Rich (20%)	17.6	19.5	16.6
Richest (20%)	26.7	25.0	21.7
Significance	p<0.001	p<0.001	p<0.001

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

also show significant increase in access to various reading materials in terms of parental education and yearly food security status of households for each of the four groups of respondents such as males, females, rural, and urban.

Percentage of respondents having access to various reading materials were cross-tabulated with wealth ranking of their households. The findings reveal that access to each of the reading materials significantly increased with the increase of wealth ranking of households (Table 5.26). Among the respondents belonging to the 'poorest' households 7% read newspapers, 10.6% read literary books, and 8.1% read religious books during the week prior to interview. These figures were 26.7, 25, and 21.7%, respectively among those belonging to the 'richest' households.

K. Multivariate analysis of access to ICTs and reading materials

A total of eight multivariate logistic regression models were developed in order to find out the predictive factors of access to various information and communication technologies and reading materials. All respondents aged 11 years and above were included in each model. This would help understanding the predictive power of various background characteristics of the respondents in explaining their access. Each dependent variable was dichotomously measured – either the respondents had access to it according to the definition of this study mentioned above or not. The ICT related variables were access to cell phones, computers, the Internet, radio and television and the reading materials including newspapers, literary books and religious books. Similar to the analysis carried out for this report in Chapter 3, ten explanatory variables were considered; measurement of which is provided in Annex 3.32. Some of these variables are continuous and some are categorical. The categorical variables are gender, residence, ethnicity, religion, and gender and literacy status of household heads. The continuous variables are age and education of respondents, mothers' education, and household wealth.

Unlike the one in Chapter 3, an enter method was followed in building the models. This means that all 10 potential explanatory variables, whether they have significant contribution in explaining the dependent variables, were allowed to be in the model. The rationale for this is comparability among the models. If the models were built with only the statistically significant explanatory variables it would not be possible to compare among the regression coefficients. Results of the regression analyses are provided in Tables 5.27 and 5.28. The explanatory variables collectively explained various percentage of variations in the

dependent variables which ranges from 6% to 27%. This indicates various degrees of predictive power of the explanatory variables.

The regression models related to access to ICTs are provided in Table 5.27. Access to each of the technologies decreased with the increase of age of the respondents; however, it increased with the increase of their educational qualifications. Access to cell phones, computers and Internet browsing increased with the increase of mothers' education and household wealth. Access to television also increased with the increase of household wealth. No role for mothers' education on access to radio or television and household wealth on access to radio was found. Males were more likely to have access to each of the technologies than females and urban respondents surpassed their rural counterparts in access to cell phones, computers, the Internet and television. Non-Muslim respondents were more likely to have access to cell phones and television than the Muslim respondents. Members of the female headed households were ahead of those of male headed households in access to cell phones, Internet browsing and watching television. If the head of the household was literate the chance of access to a cell phone and television also increased. Small ethnic groups were more likely to have access to cell phones and television and the Bangalis had more access to radio.

The regression models related to access to reading materials are provided in Table 5.28. Increase in each of the three types of reading materials was found with increase in educational qualifications of the respondents. Access to newspapers and literary books decreased with increase in age of the respondents but an opposite relationship was found in access to religious books. In contrast, access to newspapers and literary books increased with increase of mothers' education but an opposite relationship was noticed in the case of access to religious books. Access to newspapers and literary books also increased with increase of household wealth. Males were more likely to have access to newspapers and literary books but the females in religious books. Urban respondents were more likely to get access to newspapers, rural

Table 5.27

Logistic regression coefficients predicting access to various ICTs

Explanatory variables	Models				
	Cell phone	Computer	Browsing	Radio	Television
Age	-0.050***	-0.056***	-0.075***	-0.037***	-0.028***
Education	0.241***	0.495***	0.470***	0.146***	0.043***
Gender: Male	0.886***	1.737***	1.873***	0.947***	0.848***
Residence: Urban	0.403***	0.886***	0.752***	0.112^{ns}	1.317***
Mothers education	0.333*	0.105***	0.034**	0.014^{ns}	0.013^{ns}
Religion: non-Muslim	0.278**	0.319^{ns}	0.095^{ns}	-0.024^{ns}	0.554***
HHH: Female	0.227*	0.380*	0.535***	0.144^{ns}	0.204**
HHH: Literate	0.233**	-0.079^{ns}	0.126^{ns}	0.064^{ns}	0.164**
Ethnicity: SEG	0.583***	-0.081^{ns}	-0.559^{ns}	-2.050***	0.709***
Household wealth	0.110***	0.189***	0.145***	0.027^{ns}	0.233***
Constant	1.147***	-8.721***	-6.244***	-3.257***	-0.872***
-2 Log Likelihood	7350.358	2184.643	4006.427	4384.210	11549.006
Cox & Snell R^2	0.268	0.125	0.228	0.057	0.180
Nagelkerke R^2	0.418	0.428	0.478	0.147	0.246

*p<0.05, **p<0.01, ***p<0.001, ns = not significant at p<0.05

Source: Education Watch Survey on Access to ICT and Reading Materials Survey, 2016

respondents to religious books and both had equal access to literary books. Non-Muslims were more likely to have access to newspapers and literary books but the Muslims to religious books. Members of the female headed households were likely to have access to literary books, but no difference between male and female headed households persists in access to the remaining two. If the household head was literate the members were more likely to have access to each of the three reading materials compared to those having non-literate household heads.

Table 5.28
Logistic regression coefficients predicting access to various reading materials

Explanatory variables	Models		
	Newspapers	Literary books	Religious books
Age	-0.016***	-0.065***	0.010***
Education	0.403***	0.287***	0.306***
Gender: Male	1.738***	0.317***	-0.445***
Residence: Urban	0.616***	0.035ns	-0.204**
Mothers education	0.022*	0.062***	-0.033**
Religion: non-Muslim	0.238*	0.252*	-0.219*
HHH: Female	0.039^{ns}	0.228**	0.138ns
HHH: Literate	0.558***	0.208**	0.545***
Ethnicity: SEG	0.251^{ns}	0.066^{ns}	0.397^{ns}
Household wealth	0.045**	0.039*	0.012^{ns}
Constant	-5.867***	-2.476***	-4.126***
-2 Log Likelihood	5546.623	6767.656	6860.576
Cox & Snell R^2	0.263	0.220	0.144
Nagelkerke R^2	0.462	0.370	0.257

*p<0.05, **p<0.01, ***p<0.001, ns = not significant at p<0.05
Source: Education Watch Survey on Access to ICT and Reading Materials Survey, 2016

L. Demand for quality of life improvement information

A good portion of the respondents, irrespective of their profession, felt the need for new information for professional development as well as for living a better life. Nearly 62% of the respondents felt the need for new information for doing better in their professional life and 96% felt such need for living a better life at both personal and social levels (Table 5.29). Eighty-five percent of males and 42% of females felt the need of new knowledge for professional development (p<0.001); whereas it was 61.6% among rural respondents and 63% among urban respondents (p<0.01). On the other hand, 96.9% of males and 95.6% of females felt the need of new information for living a better life (p<0.01). It was 95.9% among rural and 96.9% among urban respondents (p<0.05). Proportionately more males had demand for information for occupational development and personal/social wellbeing than females in both rural and urban areas. High demand for information was observed irrespective of occupational background of the respondents (Annex 5.40).

Statistically significant variation was observed in demand for information for occupational development and personal/social wellbeing for different strata (Table 5.30). Demand for information related to occupational development was highest in rural Rajshahi division (69.4%), followed closely by rural Sylhet division and city corporations (around 64% each). A similar level of demand for such information was observed in rural Chittagong, Khulna and Rangpur divisions, and the municipalities – over 62% of the respondents of these strata demanded this. The least proportion of respondents of rural Barisal division wanted information on occupational development (54%). On the other hand, 99.2% of the respondents of rural Rangpur division demanded information for personal/social wellbeing. This was over 97% in rural Chittagong, Rajshahi and Khulna divisions, and city corporations. Similar to demand for information on occupational development, demand for information on personal/social wellbeing was least in rural Barisal division (86.2%). Strata-wise significant variation was observed for males and females separately. Gender difference in demand for information on occupational development was observed in each stratum (Annexes 5.41 and 5.42). In each case, demand for information was more from males than females.

Nine specific areas were identified in which the respondents required information. Those who required information for occupational development, 41.3% required it on education, 27.4% on agriculture and food processing, 20.1% on technology, and 8% on health (Annex 5.43). Those who required information for personal/social wellbeing, 55.5% required it on health, 41.4% on education, 14.4% on technology, 12.8% on law and human rights, and 9% on cooking (Annex 5.44). The other issues included trading, handicrafts, tailoring, and religious affairs. More males than females required information on agriculture, technology, and law and human rights and an opposite scenario was observed in requiring information on health, education, and cooking. As expected, a higher proportion of rural respondents needed agricultural information than their urban counterparts. On the other hand, it was education and technology related information more of which the urban respondents wanted.

Table 5.29

Percentage of respondents requiring information/knowledge for occupation and personal/social development by residence and gender

Residence	Gender		Both	Significance
	Male	Female		
Occupational				
Rural Bangladesh	85.4 (4,087)	41.4 (4,732)	61.6 (8,819)	p<0.001
Urban Bangladesh	83.6 (1,148)	45.2 (1,313)	63.0 (2,461)	p<0.001
Significance	ns	p<0.01	p<0.01	
All Bangladesh	85.1 (5,235)	41.9 (6,045)	61.8 (11,280)	p<0.001
Personal/social				
Rural Bangladesh	96.4 (4,087)	95.4 (4,732)	95.9 (8,819)	p<0.05
Urban Bangladesh	97.6 (1,148)	96.2 (1,313)	96.9 (2,461)	p<0.05
Significance	p<0.05	ns	p<0.05	
All Bangladesh	96.9 (5,235)	95.6 (6,045)	96.1 (11,280)	p<0.01

Figures in the parentheses indicate number of respondents

Source: Education Watch Survey on Lifelong Learning Opportunities, 2016

Respondents were asked about the sources of the information they required. Relatives and neighbours were the most frequently mentioned sources for both types of information (occupational and personal/social) (Annexes 5.45 and 5.46). Over 79% of the respondents relied on these sources for information related to personal/social wellbeing and 63% knocked for occupational development. The other important sources of information related to occupational development were colleagues (22.5%), supervisors or *Ustad*s (mentors) in shops/workplaces (20.1%), and teachers of schools and colleges (15.1%). These were television (12.5%) and doctors, hospitals or health workers (10.4%) in the case of information on personal/social wellbeing. Females and rural respondents were more likely to knock their relatives and neighbours and teachers. On the other hand, colleagues and supervisors or *Ustad*s were preferred by males and urban respondents.

The majority of the respondents reported that they always got information as per their need – 70% mentioned that they received occupation related information and 62.8% reported receiving information for personal/social wellbeing as they needed these (Annex 5.47). A quarter of the respondents reported that they sometimes got occupation related information and 30% faced the same situation for information related to personal/social wellbeing. The rest of the respondents did not get information as per need. Although no gender difference was observed in getting information, the urban respondents were ahead of their rural counterparts in this. Stratum-wise variation in this regard is provided in Annex 5.48. Respondents of the city corporations were at the top in always getting information on time and the respondents of rural Khulna division were at the bottom.

Occupation-wise variation was observed in getting necessary information, when needed or on timely basis (Annexes 5.49 and 5.50). For instance, those who were engaged in agriculture, day labour, fishing, and handicrafts were less likely to get their profession-related information always. On the other hand, drivers, salaried job holders, business persons were ahead of other occupational groups in this regard. Again, those who were engaged in agriculture, day labour, rickshaw/van pulling, carpentry/ mason/electrical work, and handicrafts were less likely than others to get timely information related to personal and social wellbeing. Unemployed respondents also claimed the same. On the other hand, salaried job holders, students and those who were not doing anything (unemployed) were more likely to have timely information.

Table 5.30
Percentage of respondents requiring information for occupational development and personal/ social wellbeing by strata

Strata	Occupational development	Personal/social well being
Rural Dhaka division	57.8 (1,267)	94.3 (1,267)
Rural Chittagong division	62.7 (1,250)	97.8 (1,250)
Rural Rajshahi division	69.4 (1,251)	97.7 (1,251)
Rural Khulna division	62.4 (1,215)	97.1 (1,215)
Rural Barisal division	54.0 (1,351)	86.2 (1,351)
Rural Sylhet division	64.0 (1,355)	95.3 (1,355)
Rural Rangpur division	62.2 (1,230)	99.2 (1,230)
City corporations	64.3 (1,203)	97.3 (1,203)
Municipalities	62.2 (1,258)	96.6 (1,258)
Significance	p<0.001	p<0.001

Figures in the parentheses indicate number of respondents
Source: Education Watch Survey on Lifelong Learning Opportunities, 2016

The respondents reported that scarcity of specialized/knowledgeable persons close by, having no training centre nearby, shortage of time to search for source, and poor road communication were listed as the major obstacles for not always getting necessary information (Annexes 5.51 and 5.52). In this regard, they suggested improvement of road communications, disseminating information through television, establishing training centres at *upazila* level, and improvement of services at union level information centres (Annexes 5.53 and 5.54). They also suggested improving awareness among common people.

M. Salient findings

- Access to various types of information and communications technology (ICT) devices and reading materials and media are analysed considering these as important means and sources for lifelong learning. The findings reveal that of four information technology devices — cell phone, television, radio and computer – cell phone was the most popular in terms of access, closely followed by television. Access to radio and computers was far behind the other two.

- Of the respondents aged 11 years and above, 78.5% had access to cell phones, 62.1% had access to television, 6.5% had access to radio, and 4.1% had access to computers. Males were ahead of females in access to each with statistically significant margin ($p<0.001$). Urban respondents surpassed their rural respondents in each ($p<0.001$). Gender difference persisted in both the areas.

- Major use of cell phones includes chatting (100%), listening to music or watching movies (55.4%), listening to *Waaz* (Islamic preaching) (33.8%), doing photography or videography (32.1%), and games (30.6%). On the other hand, major use of computers include listening to music and watching movies (68.3%), job-related writing/keeping records (51.6%), Internet browsing (46.2%), games (29.7%), and school-related study (18.6%).

- On average 9.6% of the respondents had access to the Internet; 15.1% among males and 4.8% among females ($p<0.001$), and 17.1% among urban and 7.8% among rural respondents ($p<0.001$). Males were ahead of females in both the areas. Use of social media through the Internet came out as its top use which was followed by its use for entertainment, getting general and sports news, educational purposes, job searching, email, and getting share market information.

- Of the respondents, 14.3% had access to newspapers, 16.4% had access to literary books and 13.9% had access to religious books. Males were ahead of females in access to newspapers and literary books, but an opposite scenario was observed in access to religious books, i.e., larger proportions of females used religious books compared to males. Urban respondents were ahead of their rural counterparts in each.

- Stratum-wise statistically significant variation was observed in access to each of the ICT devices and reading materials. City corporation dwellers had most access to ICTs and reading materials, but there were some poor performing areas too. Access to computers in Chittagong division, television in Barisal division, and computer, the Internet, television and newspapers in Rangpur division are some of the examples of low access.

- Access to the ICT devices and reading materials significantly decreased with increase of age of the respondents. The EFA generation (11-29 years old) had the highest access to each of the ICTs including the Internet as well as to each type of reading materials.

- Along with age, gender, area of residence, geographical stratum and cluster, variation in access to ICT devices and reading materials was observed in terms of educational qualifications of respondents, parental education, household heads gender and literacy level, ethnicity, and household wealth.

- Nearly 62% of the respondents felt the need for new information for doing better in their professional life and 96% felt such need for living a better life at both personal and social levels. Males were ahead of females in both. Urban respondents surpassed their rural counterparts in expressing the need. Stratum-wise significant variation also persisted in both.

- Information needed for occupational development includes educational information, agriculture and food processing, various technologies, and health related topics. At the same time, information for personal/social wellbeing includes health related topics, educational topics, various technologies, law and human rights, and cooking. The other issues included trading, handicrafts, tailoring, and religious affairs. Gender and residence-wise variation were evident in some of those.

- Relatives and neighbours were the principal sources for both types of information (occupational and personal/social). Over 79% of the respondents used these sources for information related to personal/social wellbeing and 63% relied on these sources for occupational development. The other important sources of information related to occupational development were colleagues, supervisors or *Ustad*s (mentors) in shops/workplaces, and school/college teachers, television, and doctors, hospitals or health workers.

Chapter Six

Discussion, Key Messages and Recommendations

This final chapter discusses the findings from this study. Findings from other recent relevant studies are cited as necessary. Key messages emanating from the study are highlighted and policy recommendations particularly related to the SDG 4 agenda are presented.

A. Discussion of findings

This 15th report of *Education Watch* dealt with three important issues related to the fourth Sustainable Development Goal (SDG 4). These are: *literacy*, *skills development*, and *lifelong learning*. The first two issues are not new to *Education Watch* – both were covered in previous *Education Watch* studies. The issue of *lifelong learning* is addressed specifically for the first time in the present *Education Watch* study.

Progress in literacy

Literacy rate is a popular indicator for understanding the state of education of a country. However, countries do not follow the same definition of literacy (UNESCO 2006). Therefore, comparing countries' education systems using this indicator does not always provide useful conclusions. The definition varies with the countries' current economic strength and future development goals. The industrialized countries (OECD and North America) use more stringent definitions accommodating a range of skills. This is not the case for Bangladesh. It has been using the same simple definition in its national censuses since its Independence which is the *ability of writing a letter to communicate a message*. Sample surveys conducted by various institutions including the Bangladesh Bureau of Statistics (BBS) and also the *Education Watch* used this definition. Information is collected by asking the head of the household about the ability of household members and recording the response. This approach to literacy assessment is subject to the following drawbacks.

a. The definition is so elementary that it does not reflect the level of literacy skills necessary for a person to function in the present development stage of the country.
b. This is not in line with the expectation of SDG 4. 'Numeracy skills' is mentioned in SDG 4 and literacy skills are seen as the foundation of lifelong learning.
c. Dichotomously measured Literacy (literate and non-literate) does not represent the way literacy is acquired which happens in a continuous process. The continuum of literacy needs to be acknowledged in the definition and measurement of literacy.

Education Watch for the first time looked at literacy assessment in 2002 addressing the above limitations. The first assessment using the new definition and designing a test instrument for this purpose was followed by its repetition in 2005 by Dhaka Ahsania Mission (DAM). The Bangladesh Bureau of Statistics (BBS) undertook a similar study in 2008 with some modifications to the *Education Watch* assessment instrument. This was a welcome move as it signalled that the government might be considering the use of a test-based measurement of literacy. The then Secretary of the Planning Division in the Ministry of Planning said, 'the new approach and methodology adopted in this survey may be used for the future surveys of this kind for getting reliable estimate of literacy of the country' (BBS 2008). Unfortunately, the initiative did not move further. No other effort was made to use this methodology to collect literacy statistics. BBS continued to use the old approach in its household income and expenditure surveys (HIES) and in its section on education as part of the Labour Force Surveys (LFS) (BBS 2011, 2016). A probable reason for such a strategy may due to the relatively lower literacy rate found through the 'test-based' assessment which might not be comfortable to the concerned government agencies.

The rates at different levels based on testing of skills reported in this study are not comparable to the single adult literacy figure reported by the government at various times because of the differences in methodology and the definitions and criteria of assessment applied. However, the premise of this study is that tested literacy levels, as well as definitions and assessment criteria that establish different levels of literacy, should be used in literacy assessment. This is essential to achieve sustainable and functionally useful levels of skills for youth and adults as the foundation for lifelong learning.

In 2010, the National Education Policy observed that the adult literacy rate in the country was 49% and the policy required of the government to 'make all citizens of the country literate by the year 2014' (GoB 2010). At that time the estimated non-literate population in the country by the official definition was about 54 million (Ahmed *et al.* 2005). The task of making these people literate was huge. In reality, except expanding the primary and secondary education system in line with the thrust of the EFA movement, the government did not take any additional initiative for improvement of the literacy status during this period (2010-2016). As a result the policy on literacy remained as a lip service only.

As found in this study, there was an increase in the literacy rate of the population of Bangladesh. Because of the demographic growth, population at all four levels of literacy has increased in absolute numbers. A strong literacy programme had to be launched or population growth rate had to be curtailed in order to let the number of literates rose faster. No literacy programme was implemented after the scrapping of the controversial Total Literacy Movement (TLM) (Chowdhury *et al.* 2002, Ahmed *et al.* 2003). The gain in literacy, as observed here, was due to the expansion of the school education programme in the country.

As of 2002, as estimated, Bangladesh had a population of 92.8 million aged 11 years and above. Of them, 38.4 million were literate. Between 2002 and 2016, 28.5 million people were added, or on average, over two million each year. At the same time, 0.7 million *non*-or-*semi* literates were added to the population. On the other hand, about 2.6 million children participated in Primary Education Completion Examination (PECE) every year with nearly 99% passing the examination (www.dpe.bd.gov). This means, number of literates added to the population was less than the number of primary graduates added. Here comes the question of quality of existing primary education.

A general norm is that children completing 3-4 years of primary education should have the basic literacy skills; unfortunately, this is not the case for Bangladesh. Although years of schooling completed was found as the most powerful predictor of achieving literacy skills; those who completed grades III, IV or V had unsatisfactory level of literacy skills – 32.4, 43.5 and 67.8%, respectively. This study reveals that at least 6-7 years of schooling of present standard is required to have an *initial* level of literacy skills for 80% of the population and 10 years of schooling to have *advanced* level literacy skills for three-fourths of the population.

Studies conducted on learning achievement of primary school students and completion of the primary stage during the past one-and-a-half decades show an improving trend (DPE 2013, 2014, Nath and Chowdhury 2009, Nath *et al.* 2015). School infrastructure and educational qualifications of the teachers increased during this period. This improvement did not result in higher proportions of primary students acquiring *initial* or *advanced* level literacy skills. A more comprehensive effort of quality improvement at both primary and secondary education is clearly called for.

Component-wise analysis of literacy shows much faster improvement in reading and writing skills but less progress in application of the 3R's. Respondents of both the years (2002 and 2016) showed the best

performance in reading and worst in application of the 3R's. The results therefore highlight the need for giving more emphasis on application of reading, writing and numeracy skills in the classrooms. If the performance of respondents in application of the 3R's had gone up at equal pace of their performance in the 3R's, overall literacy status would have been much higher than the current status. Application is a higher order skill (Blooms *et al.* 1956). *Education Watch* studies on learning achievement of the primary students repeatedly showed that students do not do well in understanding (comprehension, application, analysis and synthesis) domain as they do in knowledge domain of competencies (Nath and Chowdhury 2001, 2009, Nath *et al.* 2015). Actually, a vast gap was observed in students' achievement between these two domains. It is likely that there is a relationship between reading with understanding and comprehension in primary classrooms and poor performance in application of the 3R's. Further emphasis on learning numeracy skills is another area that needs attention.

Literacy skills of the population did not improve at equal pace among various sections of the population; the rate varied in terms of their background characteristics and geography. Overall, it improved for both males and females and for the rural population but decreased in the urban areas. Literacy rate significantly decreased for the city corporations as well as for the municipalities, though they still remained ahead of the rural areas. Specifically, it decreased among the urban males. One reason for this might be the extension of urban areas in recent past without creating adequate facilities such as schools. BBS (2015) reported that the number of urban slums increased from 2,991 in 1997 to 13,935 in 2014 with an increase of population by 60.4%. The literacy rate in the slums has been historically lower than the national average.

The city corporations and municipalities were the two top performing strata in terms of literacy rate. The gap between the highest and the lowest performing stratum, very poor performance of the newly created Mymensingh division, and a large variation among the clusters (neighbourhoods) under this study definitely show geographical inequality in literacy acquisition. The percentage of households with no literate person was very high in some areas. A similar variation is also a reality in terms of the state of school education (Ahmed *et al.* 2006, Nath *et al.* 2008, 2015, Nath and Chowdhury 2009). Therefore, targeted interventions in quality improvement should be in place in geographic locations with poor literacy. This study also observed variations in literacy rate according to parental education, religion, household wealth, and literacy status of household heads. Non-Muslims, wealthy households, literate household heads, and educated parents were found to be the factors positively associated with literacy skills. Such social barriers should be mitigated through improving quality schooling provision for all.

The EFA generation, defined as those who reached school going age at the beginning of the 1990s and those who reached primary school ending age in 2015, is a population to look at with special interest. This population aged 11-29 years may be labelled as the EFA generation. Historically, this group received a high level of attention in respect of education services. They are the fortunate beneficiaries of the EFA movement. As noted, literacy rate was the highest for this group. However, the socioeconomic variation in literacy for respondents of this group is mostly similar to that of the broad population. This means that a positive impact of EFA movement on literacy achievement of a particular age-group of population has occurred, but the movement could not spread this gain equally to all sections of society.

A question is often raised on how long Bangladesh would take to have all its population literate. As the country has not developed a successful adult literacy programme in recent years, and it is the school education which produces literate population in the country, there is hardly any possibility of getting all population to be literate within a short period. An attempt was made to estimate the number of years required to have all population (11 years and above) and the EFA generation (11-29 years) to become

literate. A Compound Growth Model was used. It was found that at the current rate of progress, Bangladesh would need 43.6 years to have all its citizens to be literate and 14.9 years to get all aged 11-29 years to be literate. In other words, Bangladesh, by present trend, will have universal literacy at *initial* level by 2060 and for the 11-29 years old by 2031. But to reach *advanced* level literacy skills Bangladesh would have to wait until 2052 for the 11-29 years old population and 2094 for all its citizens.

Acquisition of work-related skills

This study also explored the type of skills acquired by its citizens. People acquire various work-related skills through both the education system of a country and outside the education provision. Industrialized countries emphasise more on formal Technical and Vocational Education and Training (TVET). On the other hand, low income countries such as Bangladesh depend on informal/non-formal training processes for workers, the large majority of whom are employed in the informal economy, to acquire their skills.

Bangladesh, a lower middle income country, do not have a large scale TVET programme. On the other hand, the informal/non-formal means are also not as developed as the number of participants in them might suggest. The National Skills Development Policy 2011 emphasised both formal and non-formal ways of gaining skills (GoB 2011). This study observed a low rate of participation in TVET programmes. However, relatively higher participation among the youth indicates an increasing trend. The number of TVET institutions, especially the vocational streams in secondary and higher secondary schools, have grown in the country. Whereas there were only 67 institutions providing TVET in Bangladesh before Independence, it increased to 1,137 in 2000 and 5,790 in 2015 (BANBEIS 2016).

Findings of this study reveal that the majority of the students and their parents do not consider technical/vocational education while choosing further education beyond grade VIII. People in general do not have adequate information or even have misconceptions about TVET. It is important to bring the facts about TVET, particularly the prospects and opportunities, to the people especially the students, teachers and parents. An attempt may be made to gradually open Technical and Vocational Education as a stream of education in all secondary schools and madrasas along with the existing streams (viz., Humanities, Business Studies and Science). More emphasis on post-secondary non-tertiary vocational education need to be considered.

Selection of students for technical and vocational education is an important task. This is true for vocationalisation of secondary education in the form of subjects and curricular contents within regular secondary schools, as well as for dedicated TVET institutions for occupational preparation. How students for technical and vocational education and training (TVET) are selected, what proportions of secondary level students should be in TVET, how the quality and responsiveness to employment market of the programmes are ensured, and how the programmes are financed and managed in a cost-effective way are issues which have been recognised as major concerns in the Skills Development Policy. However, effective models for the Bangladesh context are yet to be developed and demonstrated (Ahmed *et al*. 2012; McGrath 2007, UNESCO-GMR 2005). Shorter and flexible courses which are market-responsive and more emphasis on post-secondary non-tertiary vocational education need to be considered.

A good portion of the respondents acquired skills through informal/non-formal ways. Majority of them learnt skills from their family members, relatives or on their own (self-learning). Acquisition of such skills was positively related to educational qualifications of the respondents. This implies that never-schooled respondents or those who had a few years of schooling were least likely to avail themselves of skills through

informal/non-formal means. The findings reveal that acquiring such skills from some sort of institutional arrangement (NGO, government or non-government arrangement, etc.) and from outside their own neighbourhoods increased with the increase of education. Both the findings collectively signify important role of school education in this regard too.

A good portion of those who acquired skills through informal/non-formal ways did not use their skills in jobs and another portion used it only 'partially'. Only a fifth of them reported to have used 'fully' the skills in which they were trained. Over a half of these respondents acquired skills keeping additional income in mind and a fifth had no specific reason. A certain level of quality basic education with skills training may prepare individuals better for the job market.

Although a mismatch between acquired skills and occupation was evident from the study, one half of those who did not acquire skills through informal/non-formal ways expressed the desire to learn skills of their choice. They were mostly young in age with relatively low level of education and having less wealth in their households. Some hypothesis can be drawn from this. As such skills are mostly used at informal sector and such a sector is unstructured by definition people are not aware about the changing demands of the market. In practice, there is no mechanism to present a clear picture of the demand of job market to potential workers. A job market information mechanism, especially, for the informal economy seems to be a necessary measure. The National Skills Development Policy 2011 has recognised this need (GoB 2011). Creation of a strong database on the needs of the employers (both formal and informal) and the skilled persons at *upazila* or union level may help connecting demand and supply. An organized way of informal skills development with adequate planning based on market demand and national goals of development is therefore required until TVET is adequately scaled up.

ICT and reading materials – ingredients of lifelong learning

The state of people's use of various types of Information and Communications Technologies (ICTs) and reading materials is encouraging. A substantial proportion of respondents uses cell phones on a regular basis and watch programmes on television, and a good portion have access to various reading materials including newspapers and literary books. These are the means of being connected with other people and their ideas and exchange views with others; thus are tools for accessing the ingredients of lifelong learning.

What type of programmes respondents generally watch on television was not explored, but information about the reason for use of cell phones was gathered. Chatting, listening to music, watching movies, doing photography and videos, listening to *Waaz* (Islamic preaching) and games are the major uses of cell phones. These are good sources for entertainment and it has a definite role for mental peace. How about linking such a tool to economic wellbeing and educational development of people? The potential certainly exists.

Less than 10% of the respondents have access to the Internet and they use it as social communication media followed by use for entertainment and news. A section of them use the Internet for education and job related purposes. The extent of access created opportunity to use communication technologies and mass media for human resource development as well as creating lifelong learning opportunities. Creation of e-contents for supporting lifelong learning may be an opportunity for targeting youth given their propensity to use social media.

Findings reveal that people demand information for professional development as well as for personal and social well-being. Some of these can be fulfilled through existing provisions and others cannot be. It was observed that relatives and neighbours are the principal sources of fulfilling most of the demands for

information. This may be because of unavailability of reliable institutional sources. ICTs, social media and electronic and print media seem to be underused in this regard. Initiatives in this area accompanied by campaign to popularise these sources may be a promising approach. Union level *Tathya Seba Kendras* (Information Service Centres) need to be more proactive to engage people in this initiative. Trust of the general masses on the sources of information is also a very important issue.

Similar to literacy, inequalities were observed in acquisition of skills, access to ICTs and reading materials and getting opportunities for lifelong learning. Inequality exists in terms of gender and area of residence as well as by geographical locations. In terms of access to ICTs and reading materials, the city corporation dwellers have most access, but there are some poor performing areas too. Access to computers in Chittagong division, television in Barisal division, and computer, the Internet, and television and newspapers in Rangpur division are some of the examples with very low access. Attributes of individuals and their household characteristics also created variation in these cases. These needs to be addressed by policy intervention as well as activities so that every corner of the country has the opportunity to develop equitably.

Practice of lifelong learning requires a balance between formal and non-formal and informal learning. Lifelong learning is prominently included in the main SDG 4 goal statement, but no mention is found of it in the ten targets. The highly skewed provisions for formal and other modes of education, and the need for a balance between the well-developed formal education programmes and non-formal and informal learning, need to be emphasized prominently in the global and national agenda. The role, for example, of a nationwide network of permanent community learning centres, properly resourced and supported, as an important vehicle for lifelong learning, has to be given due recognition.

How lifelong learning as a concept can be translated into practice, transforming the conventional patterns and limitations of educational services and access to knowledge and information, is still a challenge. A part of this is integrating different modes of learning – formal, non-formal and informal – with a focus on skills and capability enhancement of people to meet the 21st century needs in personal, social and national development.

B. Key messages

Following are the key messages emanating from the findings of the *Education Watch* 2016 study.

1. *Progress in literacy has been made, but at a slow pace*. Good news is that Bangladesh has made progress in various levels of literacy. However, the rate of progress is rather slow – only 0.7% per year. The progress rate was relatively better in reading and writing skills but very poor in numeracy and application of the 3R's. Slower progress in latter two components slowed down the overall progress in literacy. At the current rate of progress, Bangladesh would take 44 more years to have an *initial* level of literacy skills for all its citizens and 78 years to attain the *advanced* level.

2. *The EFA movement positively impacted on literacy attainment*. The highest progress in literacy was seen among those who have been at school age through the EFA period during the past 25 years (1990-2015). This implies a positive impact of the surge of educational efforts prompted by the EFA movement. This cohort of population would need 15 more years to have all of them literate at *initial* level and 36 years at *advanced* level – by 2031 and 2052, respectively.

3. *School education is the principal source for literacy attainment but the quality deficits in schooling also has been a drag on progress in literacy.* Strong relationship of literacy status and years of schooling completed indicates contribution of school education. From 2002 to 2016, literacy skills improved somewhat at different grade levels, but it still remains unsatisfactory for primary grades completers. More than a third of the fifth grade completers were found to be non-literate in 2002. The situation has not improved much since then. With current standards, at least 6-7 years of schooling is required to have an *initial* level of literacy skills for 80% of the population and 10 years of schooling to have *advanced* level of literacy skills for three-fourths of the population.

4. *Formal vocational education is not popular and there are misconceptions about it*. *Skills development for informal economy demands greater attention.* Participation in TVET and short training courses is in general very low. However, relatively higher participation rate among the youth indicates an increasing trend. People do not have adequate information or have misconceptions about such education. A good proportion of the population has undergone informal/non-formal training on various skills, but a smaller proportion of whom found it useful in their occupations. A coordinated literacy and skills development approach, especially for the low skills informal economy jobs for those not eligible for formal TVET, remains a seriously neglected area.

5. *The state of access to and use of various ICTs and reading materials signals a state of hope.* Over 80% of population use cell phones and two-thirds watch programmes on television. Access to reading materials including newspapers is also reasonably high. The Internet is mostly used for chatting and entertainment, but text messaging is less common than might be expected, presumably a reflection of the literacy level of the population. There is a demand for information on professional development as well as for personal and social wellbeing. Some of these demands can be fulfilled through current provisions and some cannot be. There are clearly untapped opportunities to use the technology devices for educational and occupational purposes.

6. *Demand for developmental information persists*. There is a demand for information on professional development as well as for healthy personal and social life. Some of these demands can be fulfilled through current provisions and some are not. Relatives and neighbours are still fulfilling most of the need for information.

7. *Varieties of inequality exist across the components addressed in this study*. Inequality in literacy, skills development and lifelong learning opportunities exists in terms of gender, area of residence, administrative division and sub-groups of population in various ways. Variation from one neighbourhood to another is very high. Furthermore, household wealth and parental education played important role in literacy achievement and access to skills training and lifelong learning opportunities. Although it is not unlikely that the well-off households would take greater advantage of facilities, the system so far reinforced disparities, rather than mitigate or reversing disparities.

C. Policy recommendations

Keeping in view the SDG 4 agenda and education priorities articulated through national discourse in Bangladesh, the analyses of the findings and the main conclusions of *Education Watch* 2016 study lead to the following policy recommendations.

1. *The national definition of literacy needs to be revisited with the aim of making literacy skills the foundation of lifelong learning as envisioned in SDG 4. A national assessment-based literacy*

measurement needs to be adopted. The archaic measurement method and the dichotomous definition of literacy are no longer useful. A test-based literacy assessment that establishes different skill levels should guide measurement of literacy skills and design of literacy programmes. Likely to Labour Force Surveys (LFS) and Household Income and Expenditure Surveys (HIES), a separate test-based assessment of literacy should be a regular activity of the Bangladesh Bureau of Statistics (BBS).

2. *Quality of school education must be improved to ensure that early primary grades produce students with an initial level of literacy and by the end of primary education (grade 5), they achieve a self-sustaining level of literacy and numeracy.* The quality improvement initiative has to address the need for greater emphasis on literacy and numeracy competencies in primary curriculum, learning materials, teaching methods, teacher training, organising the learning routine, and assessment of teacher and student performance. Literacy and numeracy have to be regarded as the tools of learning and the foundational skills. This foundation has to be firmly laid at the primary school stage for all children.

3. *The low TVET participation at the secondary level must be raised and varieties of short courses through institutions and informal/non-formal ways should be adequately nurtured in order to connect them with market*. The former can be done by adding a vocational stream within existing secondary schools and madrasas and expanding separate vocational schools with quality of training, motivated students, and strong link with employment market. This should be done in line with the National Skills Development Policy 2011. Attempts should be taken to make this stream of education understood by the students, teachers and parents through providing them adequate information to mitigate misconception about it. A major emphasis should be on relevant and flexible short courses and formal and informal apprenticeship. Again, ways outlined in the above mentioned policy should be followed to organize and assure quality of short and informal/non-formal courses engaging private bodies and NGOs. A broad definition of skills development as a part of human capability enhancement embracing the spectrum of foundation skills, transferrable skills and job-specific skills need to receive coordinated attention. These have to be offered through formal and non-formal modes of learning in basic and general education institutions and occupation related training institutions and programmes.

4. *The potential for expanding the scope of lifelong learning through information and communication technologies including cell phones, television, the print-media, and increasingly the Internet, must be fully exploited.* The seventh target of SDG 4, an amalgam of educational ambitions, has not been addressed so far very effectively in our education system, and presents formidable tasks for all seeking to promote lifelong learning. This challenge still remains to be articulated and the strategies for action and indicators for guiding and assessing action need to be worked out. In a sense, target 7 is about what education is for, whereas the other targets are more about how education is to be delivered effectively and efficiently. Both types of questions have to be answered from country perspective. A network of permanent community learning centres that most developed OECD countries and many developing Asian countries have established as the institutional vehicle for lifelong learning offers a model that should be seriously considered for Bangladesh. Youth, the most potential group for development, should be seriously engaged with the process with a vision of developed Bangladesh.

5. *Pervasive inequalities in literacy, skills development and access to ICT must be removed; education and learning opportunities should not reinforce prevailing disparities.* Sustainable development cannot be achieved while various forms of inequality persist. Previous *Education Watch* studies have documented inequalities of various forms in school education system. Now a digital divide threatens to add a new dimension to inequality in knowledge, information and learning, unless remedial and preventive

measures are put in place. As general education comes before literacy, skills development and lifelong learning, it is important to reduce inequality also in general education system as the former influences the latter.

Finally, the three components of SDG 4 dealt with in this *Education Watch* report are critical and interlinked. There is a danger that each of these components are conceived and designed as discrete endeavours, thus the advantages of complementarity and drawing strength from each other lost. The concerned authorities in Bangladesh should take the key messages seriously and thereof the recommendations. A holistic and integrated view must be taken of the SDG 4 targets; indeed, the connection between these and targets for other SDG goals, where appropriate, must be considered.

References
Annexes

Ahmed M, Nath SR and Ahmed KS. 2003. *Literacy in Bangladesh: need for a new vision.* Dhaka: Campaign for Popular Education.

Ahmed M. 2014. Squaring the circle: EFA in the post-2015 global agenda**.** *International Journal of Educational Development***,** 39: 64-69·

Bangladesh Bureau of Statistics. 2008. Literacy assessment survey 2008. Dhaka: Bangladesh Bureau of Statistics.

Bangladesh Bureau of Statistics. 2016. *Labour Force survey 2015.* Dhaka: Ministry of Planning, Peoples, Republic of Bangladesh.

Carmines EG and Zeller R. 1979. Reliability and validity assessment. Sage University Paper Series on Quantitative Applications on the Social Sciences, 07-017. Newbury Park, CA: Sage.

Chen M, Vanek J and Heintz J. 2006. *Informality, Gender and Poverty: A Global Picture*. Economic and Political Weekly.27 May. Pages 2131–2139.

Chowdhury AMR, Nath SR, Chowdhury RK and Ahmed M. 2002. Renewed hope daunting challenges – state of primary education in Bangladesh. Dhaka: Campaign for Popular Education.

Cochran WG. 1977. Sampling techniques. Singapore: John Wiley & Sons.

Delors *et al*. 1996. *Learning: the treasure within*. Report to UNESCO of the International Commission on Education for the 21st Sentury. Paris: UNESCO

Dhaka Ahsania Mission. 2007. Assessment of literacy status in Bangladesh 2005. Dhaka: UNICEF and Dhaka Ahsania Mission.

Eichhorst W. 2015. Does vocational training help young people find a (good) job?. IZA World of Labour.

Faure E, Herrera F, Kaddoura AR, Lopes H, Petrovsky AV, Rahnema M and Ward FC. 1972. *Learning to be*. Paris: UNESCO.

Ferguson GA and Takane Y. 1989. Statistical analysis in psychology and education. Sixth edition. Singapore: McGrow-Hill Book Company.

Freire P. 1972. *Pedagogy of the Oppressed*. Harmondsworth: Penguin.

Freire P. 1973. *Education for Critical Consciousness.* London: Sheed and Ward.

Friere P and Macedo D. 1987. *Literacy: reading the word and the world*. South Hadley, MA: Bergin and Garvey.

ILO. 1999. *World Employment Report 1998-99*, Geneva: International Labour Organization.

McGrath S. 2005. 'Looking beyond Primary Education' in Working Group for International Cooperation in Skill Development, 'Post-Primary Education and Skills Development, Debates in Skills Development', Paper 12, 2007. Geneva: ILO.

Ministry of Education. 2010. *National Education Policy 2010*. Dhaka: Ministry of Education, People's Republic of Bangladesh.

Ministry of Education. 2011. *National Skills Development Policy 2011.* Dhaka: Ministry of Education, People's Republic of Bangladesh.

Nath SR and Chowdhury AMR. 2009. State of primary education in Bangladesh: progress made challenges remained. Dhaka: Campaign for Popular Education.

Nath SR, Chowdhury AMR, and Ahmed KS. 2015. *Moving from MDG to SDG Accelerate Progress for Quality Primary Education.* Dhaka: Campaign for Popular Education.

Nath SR. 2016. *Realising potential – Bangladesh's experiences in education*. Dhaka: Academic Press and Publishers Library.

OECD. 2007. *Qualification Systems: Bridges to Lifelong Learning*. Paris.

Planning Commission. 2015.

UNESCO. 2005. *The Quality Imperative* – EFA Global Monitoring Report 2005. Paris: UNESCO

UNESCO. 2016. *Education for people and planate: creating sustainable future for all*. Education global monitoring report 2016. Paris: UNESCO.

United Nations. 2015. *Millennium development Goals Report 2015*. New York. Retrieved from http://www.un.org/millenniumgoals/2015_MDG_Report/pdf/MDG%202015%20rev%20(July%201).pdf

United Nations. 2015. *Transforming our world: the 2030 agenda for Sustainable Development.* Retrieved from http://www.un.org/pga/wp-content/uploads/sites/3/2015/08/120815_outcome-document-of-Summit-for-adoption-of-the-post-2015-development-agenda.pdf

Annexes

Annex 1.1

The fourth Sustainable goal and related targets

Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

4.1 By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes

4.2 By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education

4.3 By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university

4.4 By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship

4.5 By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations

4.6 By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy

4.7 By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development

4.a Build and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all

4.b By 2020, substantially expand globally the number of scholarships available to developing countries, in particular least developed countries, small island developing States and African countries, for enrolment in higher education, including vocational training and information and communications technology, technical, engineering and scientific programmes, in developed countries and other developing countries

4.c By 2030, substantially increase the supply of qualified teachers, including through international cooperation for teacher training in developing countries, especially least developed countries and small island developing States

Annex 1.2

Provisional Key Indicators for SDG Targets relevant to this study

Target 4.3: By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university

- Tertiary gross enrolment ratio *****
- Participation rate in technical-vocational programmes (15- to 24-year-olds) *
- Participation rate of youth and adults in formal and non-formal education and training in the last 12 months*

Target 4.4: By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship

- Percentage of youth/adults with ICT skills by type of skills and breakdown for age-group, economic activity status, level of education and programme orientation*

Target 4.6: By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy

- Percentage of the population by age group achieving at least a fixed level of proficiency in functional (a) literacy and (b) numeracy skills
- Participation rate of youth/adults in literacy programmes

Target 4.7: By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and non-violence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development

- Extent to which (i) global citizenship education and (ii) education for sustainable development are mainstreamed in (a) national education policies (b) curricula (c) teacher education and (d) student assessment
- Percentage of students by age group (or education level) showing adequate understanding of issues relating to global citizenship and sustainability
- Percentage of 15 year olds showing proficiency in knowledge of environmental science and geoscience.
- Percentage of schools that provide life-skills based HIV and sexuality education
- Extent to which the Framework for the World Programme on Human Rights Education is implemented nationally (as per UNGA Resolution 59/113) Note: All of three indicators are expected to be broken down by gender, age, geography, economic status, socio-ethnic groups, etc. as appropriate.

Source: UN Statistics Commission, Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators (E/CN.3/2016/2/Rev.1) Final list of proposed Sustainable Development Goal indicators, June 2016; UNESCO, Education 2030, Framework for Action, ANNEX II PROPOSED THEMATIC INDICATOR FRAMEWORK (Working Draft)

Annex 2.1
Education Watch household survey questionnaire, 2016

এডুকেশন ওয়াচ ২০১৬: খানা জরিপ প্রশ্নপত্র

সনাক্তকরণ

স্ট্রাটাম: গ্রামীণ ঢাকা = 1	গ্রামীণ চট্টগ্রাম = 2	গ্রামীণ রাজশাহী = 3	গ্রামীণ খুলনা = 4	গ্রামীণ বরিশাল = 5	গ্রামীণ সিলেট = 6	গ্রামীণ রংপুর = 7	মেট্রোপলিটন শহর = 8	পৌরসভা = 9			
উত্তরদাতার নাম:			লাইন নম্বর:			লিঙ্গ: পুরুষ = 1, নারী = 2					

ক্লাস্টার নম্বর:				খানা নম্বর:					
গ্রাম/মহল্লা:					ইউনিয়ন/ওয়ার্ড:				
উপজেলা/থানা:					জেলা:				

A. খানার সদস্যদের জনমিতি ও শিক্ষাসংক্রান্ত তথ্য

এই অংশ খানার সকল সদস্যের জন্য পূরণ করতে হবে							এই অংশ খানার 4-29 বছর বয়সীদের জন্য পূরণ করতে হবে									সাক্ষরতা জরিপের জন্য প্রযোজ্য কি? (বয়স 11+)
লাইন নম্বর	নাম	লিঙ্গ	বয়স কত?		শ্রেণি পাশ	চিঠি লিখতে পারেন কি?	স্কুলে গমন অবস্থা	বর্তমানে স্কুলে যাচ্ছে এমন সদস্যদের তথ্য		ঝরে পড়া সদস্যদের তথ্য			কখনো স্কুলে ভর্তি না হওয়ার কারণ কী?	পিতার শ্রেণি পাশ	মাতার শ্রেণি পাশ	
			বছর	মাস				কোন শ্রেণিতে পড়ছে?	স্কুলের ধরন	সর্বশেষ কোন শ্রেণিতে পড়ত?	স্কুলের ধরন	ঝরে পড়ার কারণ কী?				[টিক দিন]
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																

3. লিঙ্গ:
পুরুষ = 1
নারী = 2

7. চিঠি:
হ্যাঁ = 1
না = 2
জানা নাই= 8

8. স্কুলে গমন অবস্থা:
বর্তমানে যাচ্ছে = 1
ঝরে পড়েছে (পূর্বে গিয়েছিল কিন্তু গত ছয় মাসে একদিনও যায়নি) = 2
কখনও যায়নি = 3
জানা নাই = 8

6, 9, 11, 15, 16. শ্রেণি:
স্কুলে গিয়েছে কিন্তু কোনো শ্রেণি পাশ করেনি = 0
প্লে গ্রুপ/নার্সারি/শিশু শ্রেণি = 33
প্রথম শ্রেণি = 1
দ্বিতীয় শ্রেণি = 2 .....
এসএসসি/দাখিল = 10
এইচএসসি/আলিম = 12
বিএ/ফাজিল = 14
স্নাতক (সম্মান) = 15
এমএ/কামিল = 16
ধর্মীয় শিক্ষা = 50
ভর্তি ইচ্ছুক = 77
জানা নাই = 88
কখনো স্কুলে যায়নি = 99

10, 12. স্কুলের ধরন:
প্রাক-প্রাথমিক (এনজিও পরিচালিত) = 1
মসজিদ/মন্দির ভিত্তিক প্রাক-প্রাথমিক = 2
সরকারি প্রাথমিক = 3
সাম্প্রতিক সরকারিকৃত প্রাথমিক = 4
বেসরকারি প্রাথমিক= 5
এনজিও পরিচালিত প্রাথমিক = 6
এবতেদায়ি মাদ্রাসা = 7
দাখিল/আলিম/ফাজিল/কামিল মাদ্রাসা= 8
কওমি/হাফেজি/নূরানী মাদ্রাসা = 9
কিন্ডারগার্টেন= 10
নিম্নমাধ্যমিক = 11
বেসরকারি মাধ্যমিক = 12
সরকারি মাধ্যমিক = 13
স্কুল ও কলেজ = 14
কলেজ/বিশ্ববিদ্যালয় = 15
কারিগরি শিক্ষাপ্রতিষ্ঠান = 16
অন্যান্য (লিখুন) = 17
জানা নাই = 88, প্রযোজ্য নয় = 99

13, 14. ঝরে পড়া/স্কুলে ভর্তি না হওয়ার কারণ:
টাকার অভাব = 1
স্কুল দূরে = 2
যাতায়াতের সমস্যা = 3
অসুস্থতা/প্রতিবন্ধী = 4
ইচ্ছা করে যায় না = 5
বিয়ে = 6
স্কুল ভর্তি করেনি = 7
বয়স কম/সময় হয়নি = 8
বারবার ফেল করায় = 9
বাড়িতে কাজ করতে হয় = 10
আয়রুজি করার জন্য = 11
বিদেশ যাওয়ার জন্য = 12
সামাজিক নিরাপত্তার অভাব = 13
অভিভাবকদের অনীহা = 14
পড়ালেখা শেষ হওয়ায় = 15
অন্যান্য (লিখুন) = 16 .....
জানা নাই = 88

B. খানার আর্থ-সামাজিক তথ্য

ক্রমিক	প্রশ্ন	উত্তর/কোড
1	এই খানার সদস্যরা কোন ধর্মাবলম্বী? (একাধিক ধর্মাবলম্বী হলে, খানা প্রধানেরটি লিখুন)	মুসলিম 1 হিন্দু 2 বৌদ্ধ 3 খ্রিস্টান 4 অন্যান্য (লিখুন) 5
2	এই খানার সদস্যদের জাতিগত পরিচয় কী?	বাঙালি 1 আদিবাসী 2
3	এই খানায় বিদ্যুৎ সংযোগ আছে কি?	হ্যাঁ 1 না 2
4	এই খানার কোনো সদস্য কি বছরে কমপক্ষে ১০০ দিন শ্রম বিক্রি করে? (দিনমজুরের কাজ)	হ্যাঁ 1 না 2
5	গত এক বছরে, এই খানার আর্থিক অবস্থা কী রকম ছিল? (বিভিন্ন খাত থেকে এই খানায় যত টাকা আয় হয়েছে এবং বিভিন্ন খাতে যত টাকা ব্যয় হয়েছে তার তারতম্যের ভিত্তিতে জিজ্ঞেস করুন, গত এক বছর খানার আর্থিক অবস্থা কী রকম ছিল?)	সবসময় ঘাটতি 1 মাঝে মাঝে ঘাটতি 2 সমান 3 উদ্বৃত্ত 4
6	এই খানায় নিচের কোন দ্রব্যগুলো আছে? (খানার নিজস্ব)	

নং	দ্রব্যাদি	হ্যাঁ	না	নং	দ্রব্যাদি	হ্যাঁ	না
1	ঘড়ি (হাত/দেয়াল)	1	2	11	মোটর সাইকেল/অটোরিক্সা	1	2
2	রেডিও	1	2	12	টিউবওয়েল	1	2
3	মোবাইল/সেল ফোন	1	2	13	ল্যান্ড টেলিফোন	1	2
4	খাট/চৌকি	1	2	14	শ্যালো মেশিন/পানির পাম্প	1	2
5	টেবিল/চেয়ার	1	2	15	ধান মাড়াই মেশিন	1	2
6	সেলাই মেশিন	1	2	16	এয়ার কন্ডিশনার	1	2
7	টেলিভিশন	1	2	17	কার/জীপ/মাইক্রোবাস	1	2
8	সাইকেল/রিক্সা/ভ্যান/নৌকা	1	2	18	সোলার প্যানেল	1	2
9	রেফ্রিজারেটর	1	2	19	গবাদি পশু	1	2
10	কম্পিউটার/ল্যাপটপ	1	2				

তথ্যসংগ্রহকারীর নাম: ..... তারিখ: .....

তত্ত্বাবধায়কের নাম: ..... তারিখ: .....

Annex 2.2
Education Watch skills survey questionnaire, 2016

এডুকেশন ওয়াচ ২০১৬

সাধারণ শিক্ষা ও কর্মদক্ষতা বিষয়ক জরিপ

সনাক্তকরণ

স্ট্রাটাম:	গ্রামীণ ঢাকা = 1	গ্রামীণ চট্টগ্রাম = 2	গ্রামীণ রাজশাহী = 3	গ্রামীণ খুলনা = 4	গ্রামীণ বরিশাল = 5
	গ্রামীণ সিলেট = 6	গ্রামীণ রংপুর = 7	মেট্রোপলিটন শহর = 8	পৌরসভা = 9	

ক্লাস্টার নম্বর:				গ্রাম/মহল্লা:		খানা নম্বর:	
ইউনিয়ন/ওয়ার্ড:				উপজেলা/থানা:		জেলা:	

সাক্ষরতা জরিপে অংশগ্রহণকারীর নাম:		লাইন নম্বর:		লিঙ্গ: পুরুষ = 1, নারী = 2

A. শিক্ষা, প্রশিক্ষণ অর্জন ও এর ব্যবহার

ক্রমিক	প্রশ্ন	উত্তর/কোড	
1	আপনি কখনো কোনো শিক্ষাপ্রতিষ্ঠানে পড়ালেখা করেছেন কি?	বর্তমানে করছি	1
	⇨ উত্তর কোড 1 হলে, 2-3 নং প্রশ্ন জিজ্ঞেস করে 7 নং প্রশ্নে চলে যান	আগে করেছিলাম কিন্তু গত ছয় মাসে একদিনও যাইনি	2
	⇨ উত্তর কোড 2 হলে, 4 নং প্রশ্নে চলে যান		
	⇨ উত্তর কোড 3 হলে, 9 নং প্রশ্নে চলে যান	কখনো করিনি	3
2	আপনি বর্তমানে কোন শ্রেণিতে পড়ছেন? **(শ্রেণি কোড দেখুন)**		
3	কোন ধরনের শিক্ষাপ্রতিষ্ঠানে পড়ছেন? **(স্কুলের ধরন কোড দেখুন)**		
4	সর্বশেষ কোন শ্রেণিতে পড়েছেন? **(শ্রেণি কোড দেখুন)**		
5	সর্বশেষ শিক্ষাপ্রতিষ্ঠানের ধরন কী? **(স্কুলের ধরন কোড দেখুন)**		
6	কত বছর আগে আপনি পড়ালেখা ছেড়ে দিয়েছেন? **(জানা নাই = 888)**		
7	আপনি কোন শ্রেণি পাশ করেছেন? **(শ্রেণি কোড দেখুন)**		
8	আপনি কখনো মাদ্রাসায় পড়ালেখা করলে কোন ধরনের মাদ্রাসায় পড়ালেখা করেছেন? **(স্কুলের ধরন কোড দেখুন। একাধিক কোড হতে পারে)**		
9	আপনি কি চিঠি লিখতে পারেন? **কোড:** হ্যাঁ = 1, না = 2		
10	আপনি কোথায় চিঠি লিখতে শিখলেন? **(একাধিক কোড হতে পারে)** **কোড:** শিক্ষাপ্রতিষ্ঠানে = 1, সাক্ষরতা কর্মসূচি/কেন্দ্রে = 2, বাড়িতে/আত্মীয়-স্বজন/প্রতিবেশির কাছ থেকে = 3, মক্তবে = 4, অন্যান্য (লিখুন) = ... প্রযোজ্য নয় = 9		
11	আপনার বাবা কোন শ্রেণি পাশ করেছেন?		
12	আপনার মা কোন শ্রেণি পাশ করেছেন?		

শ্রেণি:		**স্কুলের ধরন:**		
স্কুলে গিয়েছে কিন্তু কোনো শ্রেণি পাশ করেনি = 0	বিএ/ফাজিল = 14	প্রাক-প্রাথমিক (এনজিও পরিচালিত) = 1	দাখিল/আলিম/ফাজিল/ কামিল মাদ্রাসা= 8	স্কুল ও কলেজ = 14
প্লে/নার্সারি/শিশু শ্রেণি =33	স্নাতক (সম্মান) = 15	মসজিদ/মন্দির ভিত্তিক প্রাক-প্রাথমিক = 2	কওমি/হাফেজি/ নূরানী মাদ্রাসা = 9	কলেজ/বিশ্ববিদ্যালয় = 15
প্রথম শ্রেণি = 1	এমএ/কামিল = 16	সরকারি প্রাথমিক = 3	কিন্ডারগার্টেন= 10	কারিগরি শিক্ষাপ্রতিষ্ঠান = 16
দ্বিতীয় শ্রেণি = 2.....	ধর্মীয় শিক্ষা =50	সাম্প্রতিক সরকারিকৃত প্রাথমিক = 4	নিম্নমাধ্যমিক = 11	অন্যান্য (লিখুন) = 17 ...
এসএসসি/দাখিল = 10	ভর্তি ইচ্ছুক = 77	বেসরকারি প্রাথমিক= 5	বেসরকারি মাধ্যমিক = 12	জানা নাই = 88
এইচএসসি/আলিম = 12	জানা নাই = 88	এনজিও পরিচালিত প্রাথমিক =6	সরকারি মাধ্যমিক = 13	প্রযোজ্য নয় = 99
	কখনো স্কুলে যায়নি/ প্রযোজ্য নয় = 99	এবতেদায়ি মাদ্রাসা = 7		

ক্রমিক	প্রশ্ন		উত্তর/কোড	
13	আপনি কখনো মাধ্যমিক বা মাধ্যমিক পরবর্তী শিক্ষায়/পড়ালেখায় টেকনিক্যাল বা ভোকেশনাল লাইনে পড়েছিলেন/পড়ছেন কি? (**শ্রেণি পাশ ৮ম শ্রেণির বেশি হলে জিজ্ঞেস করুন)** **⇨উত্তর কোড 1 হলে, 14 নং প্রশ্ন জিজ্ঞেস করুন** **⇨ উত্তর কোড 2 হলে, 16 নং প্রশ্নে চলে যান** **⇨ উত্তর কোড 9 হলে, 17 নং প্রশ্নে চলে যান**		হ্যাঁ	1
			না	2
			প্রযোজ্য নয়	9
14	পড়ে থাকলে তা কোন কোন পর্যায়ে?	মাধ্যমিক	হ্যাঁ = 1, না = 2, প্রযোজ্য নয় = 9	
		উচ্চমাধ্যমিক	হ্যাঁ = 1, না = 2, প্রযোজ্য নয় = 9	
		ডিপ্লোমা	হ্যাঁ = 1, না = 2, প্রযোজ্য নয় = 9	
15	কোন পর্যায়ে কোন কোর্স ছিল? **কোড:** এসএসসি (ভোকেশনাল) = 1, দাখিল (ভোকেশনাল) = 2, এইচএসসি (ভোকেশনাল) = 3, এইচএসসি (বিজনেস ম্যানেজম্যান্ট) = 4, ডিপ্লোমা ইন কমার্স = 5, ডিপ্লোমা ইন ইঞ্জিনিয়ারিং = 6, ডিপ্লোমা ইন এগ্রিকালচার = 7, ডিপ্লোমা ইন টেক্সটাইল = 8, ডিপ্লোমা ইন ফিশারিজ = 9, ডিপ্লোমা ইন জুট টেকনোলজি = 10, ডিপ্লোমা ইন হেলথ টেকনোলজি = 11, ডিপ্লোমা ইন ফরেস্ট্রি = 12, ডিপ্লোমা ইন নার্সিং = 13, অন্যান্য (লিখুন) = ... জানা নাই = 88		মাধ্যমিক	
			উচ্চমাধ্যমিক	
			ডিপ্লোমা	
16	মাধ্যমিক বা মাধ্যমিক পরবর্তী শিক্ষায় কখনো টেকনিক্যাল বা ভোকেশনাল লাইনে পড়ে না থাকলে তার প্রধান কারণ কী?	এ বিষয়ে কোনো ধারণাই ছিল না/জানতাম না		1
		কখনো এ বিষয়ে পড়ার কথা চিন্তা করিনি		2
		পরিবারের কেউ এ বিষয়ে পড়ার কোনো পরামর্শ দেয়নি		3
		শিক্ষকরা এ বিষয়ে পড়ার কোনো পরামর্শ দেয়নি		4
		এ বিষয়ে পড়ার সুযোগ ছিল না		5
		সামাজিক মান-মর্যাদা কম		6
		চাকরির সুযোগ কম/চাহিদা কম		7
		মজুরি/বেতন কম		8
		পরিবারের পক্ষ থেকে সম্মতি না পাওয়ায়		9
		এ লাইনে পড়ালেখার খরচ বেশি		10
		অন্যান্য (লিখুন)		11
		জানা নাই		88
		প্রযোজ্য নয়		99
17	আপনি কখনো কারিগরি বা বৃত্তিমূলক কোনো সংক্ষিপ্ত/মৌলিক কোর্সে (এক বছরের নিচে) অংশ নিয়েছিলেন/নিচ্ছেন কি?		নিয়েছে	1
			ঝরে পড়েছে	2
			শিক্ষানবিশ	3
			কখনো নেইনি	4
18	অংশ নিয়ে থাকলে সংক্ষিপ্ত/মৌলিক কোর্সগুলো কী কী? **কোড: B.3 প্রশ্নের কাজের ধরন কোড দেখুন, প্রযোজ্য নয় = 99**		নিয়েছে	
			ঝরে পড়েছে	
			শিক্ষানবিশ	

ক্রমিক	প্রশ্ন		গুরুত্বের ক্রম		
19	আপনি (যারা চিঠি লিখতে পারেন) যতটুকু পড়ালেখা শিখেছেন বা জানেন তা আপনার কী কী কাজে লাগে/লেগেছে? **(গুরুত্বের ক্রমানুসারে প্রধান তিনটি বলুন)**		১ম	২য়	৩য়
	কোড:পেশা/জীবিকার কাজে =1 দৈনন্দিন হিসাব-নিকাশে = 2 ছেলেমেয়েদের পড়ালেখায় সাহায্যে = 3 চিঠিপত্র লেখা/দলিল দস্তাবেজ পড়তে = 4 পত্রিকা/সাময়িকী/বই পড়তে = 5 প্রাইভেট পড়াতে = 6 পড়ালেখার কাজে = 7	তথ্যপ্রযুক্তির ব্যবহারে (মোবাইল/ইন্টারনেট/ কম্পিউটার ইত্যাদি) = 8 সাইনবোর্ড/বিলবোর্ড/নির্দেশনা/ঠিকানা বুঝতে = 9 নিজের ও পরিবারের স্বাস্থ্য, পুষ্টি, পরিবেশ ইত্যাদি সংক্রান্ত তথ্য জানার জন্যে = 10 কোনো কাজে লাগে না = 11 অন্যান্য (লিখুন) =12			

B. পেশা, অর্জিত দক্ষতার প্রকার ও ব্যবহার

ক্রমিক	প্রশ্ন		উত্তর/কোড
1	আপনার প্রধান পেশা কি? **(যে কাজে বেশি সময় ব্যয় করেন)** **কোড:**কৃষি/বর্গা চাষ = 1, দিনমজুর (কৃষি/অকৃষি) = 2, চাকরি = 3, ব্যবসা = 4, ড্রাইভার = 5, রিকশা/ভ্যান/নৌকা চালক (নিজের) = 6, স্ব-নিয়োজিত পেশা (কাঠমিস্ত্রী/রাজমিস্ত্রী/ইলেকট্রিশিয়ান ইত্যাদি) = 7, মাছ ধরা = 8, হস্তশিল্প = 9, গৃহকর্ম = 10, শিক্ষার্থী = 11, কিছু করে না = 12, বেকার = 13, অক্ষম = 14, অবসরপ্রাপ্ত/বয়োবৃদ্ধ = 15, অন্যান্য (লিখুন) = 17..... জানা নাই = 88		
2	জীবিকা/আয়-উপার্জনে সহায়ক এমন কাজগুলো যা করতে প্রাতিষ্ঠানিক বা অপ্রাতিষ্ঠানিক কিছু প্রশিক্ষণের দরকার হয়, তার কোনোটি আপনার জানা আছে/বর্তমানে শিখছেন কি? **⇨উত্তর কোড 1/2 হলে, 3 থেকে 10 নং প্রশ্নগুলো জিজ্ঞেস করুন** **⇨উত্তর কোড 3 হলে, 11 নং প্রশ্নে চলে যান**	জানা আছে শিক্ষানবিশ জানা নাই	1 2 3
3	কোনো কাজ জানা থাকলে/শিক্ষানবিশ হলে কাজটি কোন ধরনের? **(একাধিক থাকলে প্রধানটি লিখুন)**		
	কাজের ধরন কোড		
	ইলেকট্রিক্যাল/ইলেক্ট্রনিক্স ইলেকট্রিক্যাল/বৈদ্যুতিক কাজ = 1 বেসিক ইলেক্ট্রনিক্স (রেডিও/টিভি...) = 2 ফ্রিজ/এসি রিপেয়ার = 3 **গৃহ নির্মাণ** কার্পেন্টার/কাঠ মিস্ত্রি = 4 থাই এ্যালুমিনিয়াম ফিটিংস = 5 ওয়েলডিং = 6 মোজাইক/টাইল্স = 7 রাজমিস্ত্রি = 8 হ্যান্ড এন্ড ব্রাশ পেইন্টার = 9 **পোষাক-পরিচ্ছদ** টেইলারিং/ড্রেস-মেকিং = 10 এমব্রয়ডারি = 11 গার্মেন্টস মেশিন অপারেটর= 12 ব্লক/বাটিক/স্ক্রিন প্রিন্ট = 13	**চিকিৎসা** হোমিওপ্যাথিক চিকিৎসা = 14 পল্লী চিকিৎসা = 15 কবিরাজী = 16 **কৃষি ও খাদ্য** ফিশারিজ/মৎস চাষ = 17 পোল্ট্রি = 18 গবাদি পশু পালন = 19 কৃষি কাজ = 20 ফুড প্রসেসিং= 21 কুক/বাবুর্চি = 22 **গ্রামীণ শিল্প** হস্তশিল্প/কুটির শিল্প = 23 কামার = 24 কুমোর = 25 তাঁতী = 26	**অন্যান্য** কম্পিউটার অপারেটিং = 27 মোবাইল সার্ভিসিং = 28 মোটর সাইকেল/গাড়ির মেকানিক = 29 ড্রাইভিং = 30 ল্যাব টেকনিশিয়ান = 31 বিউটিশিয়ান/হেয়ার ড্রেসার = 32 ফটোগ্রাফি = 33 বৈদেশিক ভাষা = 34 আমিন = 35 চর্মকার = 36 গহনা তৈরি = 37 লেদ মেশিন অপারেটর = 38 অন্যান্য (লিখুন) = ...
4	কাজটি আপনি কোথা থেকে শিখেছেন/শিখছেন?	শিক্ষাপ্রতিষ্ঠান	1
		সরকারি/বেসরকরি সংস্থা	2
		এনজিও/দাতা সংস্থা	3
		ওস্তাদ/ব্যক্তি বিশেষের কাছ থেকে	4
		পরিবার/আত্মীয়-স্বজনের কাছ থেকে	5
		নিজে চেষ্টা করে শিখেছি	6
		অন্যান্য (লিখুন)	7
5	যদি কাজটি কোনো প্রতিষ্ঠান বা কোনো ব্যক্তি বিশেষের কাছ থেকে শেখেন তবে তা কোথায় অবস্থিত?	নিজ গ্রামে/মহল্লায়	1
		নিজ ইউনিয়ন/ওয়ার্ডে	2
		নিজ উপজেলায়/থানায়	3
		নিজ জেলায়	4
		অন্য জেলায়	5
		প্রযোজ্য নয়	9

ক্রমিক	প্রশ্ন	উত্তর/কোড	
6	এই কাজটি আপনি কেন শিখলেন/শিখছেন? **(প্রধান কারণটি বলুন)**	চাকরি/কাজ পাওয়ার জন্য	1
		বেতনবৃদ্ধি/পদোন্নতি পাওয়ার জন্য	2
		বিদেশ যাওয়ার জন্য	3
		ব্যবসা/স্ব-কর্মসংস্থান শুরুর লক্ষ্যে	4
		বাড়তি আয়/উপার্জনের জন্য	5
		পরিবার/আত্মীয়-স্বজনের পরামর্শে/ইচ্ছায়	6
		ওস্তাদ/মালিকের পরামর্শে/ইচ্ছায়	7
		শখের বসে	8
		অন্যান্য (লিখুন)	9
		জানা নাই	88
7	এই কাজটি আপনার আয়-রুজি/জীবিকায় কোনো ভূমিকা রাখছে কি?	প্রধান ভূমিকা রাখছে	1
		আংশিক ভূমিকা রাখছে	2
		কোনো ভূমিকা রাখছে না	3
8	আপনার শেখা কাজটি আয়-রুজি/জীবিকাতে কোনো ভূমিকা না রাখলে তার কারণ কী বলে আপনার মনে হয়? **(প্রধান কারণটি বলুন)**	প্রয়োজনীয় কাজের অভাব	1
		চেষ্টার অভাব	2
		টাকার/পুঁজির অভাব	3
		পারিবারিক/সামাজিক বাধা	4
		প্রয়োজনীয় শিক্ষা না থাকা	5
		অন্য পেশায় নিয়োজিত	6
		শারীরিক অক্ষমতা/বয়সের বাধা	7
		ঐ কাজে আয় কম	8
		এখনো শিখছি/শিক্ষানবিশ	9
		অন্যান্য (লিখুন)	10
		প্রযোজ্য নয়	99
9	এ কাজটি ছাড়া আপনার অন্য কোনো কাজ জানা আছে/শিখছেন কি?	হ্যাঁ	1
		না	2
10	হ্যাঁ হলে, কী কী কাজ জানা আছে/শিখছেন? **কোডঃ B.3 প্রশ্নের কাজের ধরন কোড দেখুন, প্রযোজ্য নয় = 99**	জানা আছে	
		শিক্ষানবিশ	
11	জীবিকা/আয়-উপার্জনে সহায়ক এমন কোনো ধরনের কাজের দক্ষতা অর্জন করার ইচ্ছা আপনার আছে কি?	হ্যাঁ	1
		না	2
12	হ্যাঁ হলে, কী ধরনের কাজ আপনি শিখতে চান? **কোডঃ B.3 প্রশ্নের কাজের ধরন কোড দেখুন, প্রযোজ্য নয় = 99**		

Annex 2.3
Education Watch survey of lifelong learning opportunities

এডুকেশন ওয়াচ ২০১৬

জীবনব্যাপী শিক্ষার প্রয়োজন, মাধ্যম ও সুযোগ সংক্রান্ত জরিপ

সনাক্তকরণ

স্ট্রাটাম:	গ্রামীণ ঢাকা = 1	গ্রামীণ চট্টগ্রাম = 2	গ্রামীণ রাজশাহী = 3	গ্রামীণ খুলনা = 4	গ্রামীণ বরিশাল = 5
	গ্রামীণ সিলেট = 6	গ্রামীণ রংপুর = 7	মেট্রোপলিটন শহর = 8	পৌরসভা = 9	

ক্লাস্টার নম্বর:				গ্রাম/মহল্লা:			খানা নম্বর:		
ইউনিয়ন/ওয়ার্ড:				উপজেলা/থানা:			জেলা:		

সাক্ষরতা জরিপে অংশগ্রহণকারীর নাম:	লাইন নম্বর:			লিঙ্গ: পুরুষ = 1, নারী = 2

C. তথ্যপ্রযুক্তি এবং গণমাধ্যমের ব্যবহার

ক্রমিক	প্রশ্ন		উত্তর/কোড			
			তথ্যপ্রযুক্তি সামগ্রী			
			মোবাইল ফোন	স্মার্ট ফোন/ ট্যাব	কম্পিউটার	ল্যাপটপ
			1	2	3	4
1	আপনি ব্যবহার করতে জানেন কি?	হ্যাঁ	1	1	1	1
	⇨ **সবগুলোর উত্তর কোড 2 হলে, 7 নং প্রশ্নে চলে যান**	না	2	2	2	2
2	সর্বশেষ কবে আপনি এটা ব্যবহার করেছেন? **কোড:** গতকাল = 1, গত তিন দিনে = 2, গত সাত দিনে = 3, গত পনেরো দিনে = 4, গত এক মাসে = 5, গত তিন মাসে = 6, গত ছয় মাসে = 7, ছয় মাসের আগে = 8, প্রযোজ্য নয় = 9					
3	সামগ্রীটি কি আপনার নিজস্ব?	হ্যাঁ	1	1	1	1
		না	2	2	2	2
		প্রযোজ্য নয়	9	9	9	9
4	কোন তথ্যপ্রযুক্তি সামগ্রী কোন কোন কাজে ব্যবহার করেন? **(একাধিক কোড হতে পারে)**	কথা বলা	1	1	1	1
		SMS/চ্যাটিং	2	2	2	2
		ইন্টারনেট ব্যবহার/ব্রাউজিং	3	3	3	3
		গেম	4	4	4	4
		পড়ালেখার কাজে	5	5	5	5
		পেশাসংক্রান্ত টাইপিং/রাইটিং ইত্যাদি	6	6	6	6
		গান/সিনেমা/নাটক/কার্টুন শোনা/দেখা	7	7	7	7
		ওয়াজ শোনা	8	8	8	8
		রেডিও শোনা	9	9	9	9
		ছবি তোলা/ভিডিও করা	10	10	10	10
		মানি ট্রান্সফার/মোবাইল ব্যাংকিং	11	11	11	11
		প্রযোজ্য নয়	99	99	99	99
5	কোন সামগ্রীটি কোন কাজে সবচেয়ে বেশি ব্যবহার করেন? **(4 নং প্রশ্নের কোড দেখে লিখুন, প্রযোজ্য নয় = 99)**					
6	আপনি সাধারণত ইন্টারনেটে কোন ধরনের তথ্য ব্রাউজ করেন? **(4 নং প্রশ্নের উত্তর কোড 3 হলে জিজ্ঞেস করুন)**	দেশ-বিদেশের সংবাদ				1
		খেলাধুলার খবর				2
		সামাজিক যোগাযোগে (ফেইসবুক, ভাইবার ইত্যাদি)				3
		শিক্ষা/জ্ঞানমূলক তথ্য				4

	(একাধিক কোড হতে পারে)	বিনোদনমূলক	5
		চাকরির খবর	6
		শেয়ার বাজার	7
		ই-মেইল	8
		অন্যান্য (লিখুন)	9
		প্রযোজ্য নয়	99
7	আপনি কি গত এক সপ্তাহের মধ্যে কখনও...	রেডিওতে কোনো অনুষ্ঠান শুনেছেন?	হ্যাঁ = 1, না = 2
		টেলিভিশনে কোনো অনুষ্ঠান দেখেছেন?	হ্যাঁ = 1, না = 2
		খবরের কাগজ পড়েছেন?	হ্যাঁ = 1, না = 2
		ইন্টারনেট ব্রাউজ করেছেন?	হ্যাঁ = 1, না = 2

D. পাঠাভ্যাস (যারা চিঠি লিখতে পারেন)

ক্রমিক	প্রশ্ন		কোড
1	আপনি কি প্রায়ই (পাঠ্যবই ব্যতীত) কোনো ধরনের বই/পুস্তিকা, পত্রিকা/ম্যাগাজিন ইত্যাদি পড়ে থাকেন? ⇨ **উত্তর কোড 2 হলে, E সেকশনেচলে যান**	হ্যাঁ	1
		না	2
2	সাধারণত আপনি কী কী বিষয় পড়েন? **(ইন্টারনেট ব্যবহার করেও পড়তে পারে)** **কোড:** গল্প = 1, উপন্যাস= 2, নাটক = 3, কবিতা = 4, প্রবন্ধ = 5, জীবনী = 6, বিজ্ঞান/সাধারণ জ্ঞানের বই = 7, কৌতুক/কার্টুন/রম্য বই = 8, ধর্মীয় বই = 9, দৈনিক পত্রিকা = 10, ম্যাগাজিন/সাময়িকী = 11, অন্যান্য (লিখুন) ..... = 12		
3	সাধারণত কতদিন পর পর বই/পুস্তিকা, পত্রিকা/ম্যাগাজিন ইত্যাদি পড়ে থাকেন?	প্রায় প্রতিদিন	1
		মাঝে মাঝে (সপ্তাহে ১/২ দিন)	2
		যখন-তখন/কেবল প্রয়োজন হলে	3
4	সর্বশেষ কবে আপনি এ ধরনের কিছু পড়েছেন?	গতকাল	1
		গত তিন দিনে	2
		গত সাত দিনে	3
		গত পনেরো দিনে	4
		গত এক মাসে	5
		গত তিন মাসে	6
		গত ছয় মাসে	7
		ছয় মাসের আগে	8
5	দৈনিক পত্রিকা/সাময়িকী পড়ে থাকলে কোথা থেকে পড়েন? (একাধিক কোড হতে পারে)	বাসায় রাখা হয়	1
		বন্ধু/আত্মীয়/প্রতিবেশির কাছ থেকে নিয়ে	2
		দোকানে/বাজারে পড়ি	3
		পাঠাগার/লাইব্রেরি থেকে নিয়ে	4
		অফিসে পড়ি	5
		ইন্টারনেটে পড়ি	6
		অন্যান্য (লিখুন)	7
		প্রযোজ্য নয়	9
6	গল্প, উপন্যাস, নাটক, কবিতা, প্রবন্ধ ... ধর্মীয় বই ইত্যাদি পড়ে থাকলে কোথা থেকে পড়েন? (একাধিক কোড হতে পারে)	নিজে কিনি	1
		খানার অন্য কেউ কেনে	2
		বন্ধু/আত্মীয়/প্রতিবেশি/সহকর্মীর কাছ থেকে নিয়ে	3
		পাঠাগার/লাইব্রেরি থেকে	4
		ইন্টারনেটে পড়ি/সফট কপি সংগ্রহ করে পড়ি	5
		অন্যান্য (লিখুন)	6
		প্রযোজ্য নয়	9

E. জীবনব্যাপী শিক্ষা

(মানুষ জন্ম থেকে মৃত্যু পর্যন্ত পুরো সময় ধরে নানান প্রক্রিয়ার মধ্য দিয়ে শিখতে থাকে। কিছু বিষয় সে শেখে স্কুল-কলেজসহ নানান শিক্ষা প্রতিষ্ঠানে ভর্তি হয়ে কিংবা ট্রেনিং নিয়ে। আবার কিছু বিষয় শেখে সে নিজের ইচ্ছায়, কেউ কেউ শেখে অন্যদের দেখে বা কাজ করতে গিয়ে ভুল করে। এই সব ধরনের শিক্ষাই গুরুত্বপূর্ণ। জীবনে চলারপথে প্রতিনিয়ত তথ্যের প্রয়োজন হয়। নিজের পেশায় ভালো করার জন্য এ সংক্রান্ত তথ্য যেমন প্রয়োজন তেমনি প্রয়োজন ভবিষ্যৎ কর্মপরিকল্পনা, অসুখবিসুখ হলে করণীয়, সন্তানের শিক্ষা, আর্থিক লেনদেন, সিদ্ধান্ত গ্রহণ ইত্যাদি দৈনন্দিন কাজের জন্য। বিভিন্ন ব্যক্তি বা মাধ্যমের কাছ থেকে মানুষ এইসব তথ্য নিয়ে থাকে।)

ক্রমিক	প্রশ্ন		কোড	
			পেশা/জীবিকার জন্য	জীবনে/সমাজে চলতে গেলে
1	আপনি এখন যে পেশায় আছেন তা সুষ্ঠুভাবে করতে বা জীবনে/সমাজে চলতে গেলে আপনার নতুন নতুন তথ্য/জ্ঞানের প্রয়োজন হয় কি?	হ্যাঁ	1	1
	⇨ সবগুলোর উত্তর কোড 2 হলে, প্রশ্নপত্র এখানে শেষ করুন	না	2	2
2	সাধারণত আপনার কী কী ধরনের তথ্য/জ্ঞানের বেশি প্রয়োজন হয়? **কোড:** কৃষি বিষয়ক = 1, স্বাস্থ্য বিষয়ক = 2, শিক্ষা বিষয়ক = 3, প্রযুক্তি বিষয়ক = 4, দাপ্তরিক কাজ = 5, রান্না/রেসিপি বিষয়ক = 6, আইন/মানবাধিকার বিষয়ক = 7, অন্যান্য (লিখুন) = ... জানা নাই = 88, প্রযোজ্য নয় = 99			
3	প্রয়োজনীয় নতুন তথ্য/জ্ঞান আপনি কোথা থেকে কীভাবে জানেন? **(একাধিক কোড হতে পারে)** **কোড:** সহকর্মীদের কাছ থেকে = 1, আত্মীয়-স্বজন/প্রতিবেশি/বয়োজেষ্ঠ্যদের, কাছ থেকে = 2 সুপারভাইজারের/ওস্তাদের কাছ থেকে = 3, সংবাদপত্র থেকে = 4, ম্যাগাজিন/সাময়িকী = 5 রেডিও থেকে = 6, টেলিভিশন থেকে = 7, ইন্টারনেট থেকে = 8, বইপত্র থেকে = 9, অন্যান্য (লিখুন) = ..., জানা নাই = 88, প্রযোজ্য নয় = 99			
4	আপনার প্রয়োজনীয় সব তথ্য/জ্ঞান কী যখন প্রয়োজন তখনই পান?	সবসময় পাই	1	1
		মাঝে মাঝে পাই	2	2
		খুব একটা পাই না	3	3
		প্রযোজ্য নয়	9	9
5	সময়মত প্রয়োজনীয় তথ্য না পাওয়ার প্রতিবন্ধকতাগুলো কী কী? **কোড:** প্রয়োজনীয় বইয়ের অভাব = 1; প্রয়োজনীয় বইয়ের দাম বেশি = 2; বিশেষ বিষয়ে অভিজ্ঞ লোকের অভাব = 3; প্রয়োজনীয় সংবাদপত্র/ম্যাগাজিন/ সাময়িকীর অভাব = 4; পর্যাপ্ত ইন্টারনেট সুবিধার অভাব = 5; ইন্টারনেট ব্যবস্থা ব্যয়বহুল হওয়ায়= 6; কাছাকাছি কোনো প্রশিক্ষণ কেন্দ্র না থাকায় = 7; বিদ্যুৎ সুবিধা না থাকায় = 8; যাতায়াত সমস্যা = 9; পর্যাপ্ত সময় না পাওয়া = 10; অন্যান্য (লিখুন) = ... জানা নাই = 88, প্রযোজ্য নয় = 99			
6	প্রয়োজনীয় তথ্য সময়মত পাওয়ার জন্য কী কী ব্যবস্থা নেওয়া উচিত? **কোড:** টেলিভিশন/গণমাধ্যমে অনুষ্ঠান প্রচার = 1; যোগাযোগ ব্যবস্থার উন্নয়ন = 2; ইন্টারনেট ব্যবস্থা সাশ্রয়ী করা = 3; উপজেলা পর্যায়ে প্রশিক্ষণ কেন্দ্রের ব্যবস্থা করা = 4; উপজেলা পরিষদে সবার জন্য তথ্য পাওয়ার অধিকার নিশ্চিত করা = 5; ইউনিয়ন তথ্য কেন্দ্রের সেবা বৃদ্ধি = 6; বাজারে প্রয়োজনীয় বইয়ের পর্যাপ্ত সরবরাহ = 7; নিজেদের সচেতনতা বাড়ানো = 8; অন্যান্য (লিখুন) = ... জানা নাই = 88; প্রযোজ্য নয় = 99			

তথ্যসংগ্রহকারীর নাম: .....তারিখ: .....

তত্ত্বাবধায়কের নাম: ..... তারিখ: .....

Annex 2.4
Education Watch literacy assessment test

সেট: ক

এডুকেশন ওয়াচ ২০১৬
বাংলাদেশের সাক্ষরতা পরিস্থিতি

সনাক্তকরণ

নাম: ..... কোড: .....

গ্রাম/মহল্লা: ..... উপজেলা/থানা: .....

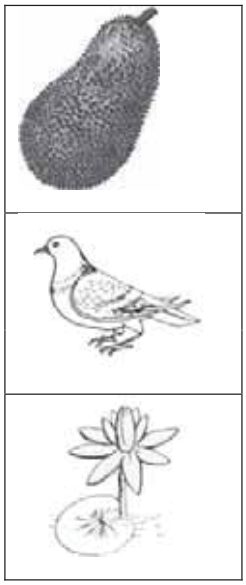
লিঙ্গ: পুরুষ = 1, নারী = 2

ক্লাস্টার নম্বর: ☐☐☐ খানা নম্বর: ☐☐ লাইন নম্বর: ☐☐

স্ট্রাটাম:					
	গ্রামীণ ঢাকা	1	গ্রামীণ চট্টগ্রাম	2	গ্রামীণ রাজশাহী	3
	গ্রামীণ খুলনা	4	গ্রামীণ বরিশাল	5	গ্রামীণ সিলেট	6
	গ্রামীণ রংপুর	7	মেট্রোপলিটন শহর	8	পৌরসভা	9

তথ্যসংগ্রহকারীর নাম: ..... তারিখ: .....
তত্ত্বাবধায়কের নাম: ..... তারিখ: .....

১। নিচের শব্দ দুটি পড়ুন। তারপর প্রতিটি শব্দের সাথে রেখা টেনে ঠিক ছবির মিল করুন।

শাপলা	
কাঁঠাল	

২। নিচের বাক্য দুটি শব্দ করে পড়ুন।

- জেলেরা নদীতে মাছ ধরে। — পেরেছে = ১, আংশিক পেরেছে = ২, পারেনি = ৩
- আমাদের পতাকার রং সবুজ ও লাল। — পেরেছে = ১, আংশিক পেরেছে = ২, পারেনি = ৩

৩। নিচের লেখাটি ভালভাবে পড়ুন। তারপর প্রত্যেক প্রশ্নের ঠিক উত্তরটিতে টিক (√) চিহ্ন দিন।

পরিবেশ ঠিক রাখার জন্য গাছপালা খুবই দরকার। সাধারণ হিসাবে কোন দেশের মোট জমির ৪ ভাগের ১ ভাগে বনভূমি থাকা উচিত। আমাদের দেশের প্রায় শতকরা ৯ ভাগ জমিতে বনভূমি রয়েছে। পরিমাণমত গাছপালা না থাকলে অনেক বিপদ দেখা দেয়। এর মধ্যে প্রধান বিপদটি হল গাছপালার অভাবে বৃষ্টিপাতের পরিমাণ কমে যায়। ফলে দেশ ধীরে ধীরে মরুভূমিতে পরিণত হতে থাকে। নানা প্রয়োজনে আমরা যে পরিমাণ গাছ কেটে ফেলি, সে পরিমাণ গাছ লাগাই না। ফলে আমাদের দেশের গাছপালার পরিমাণ দিন দিন কমে যাচ্ছে। জীবন ধারণের জন্য আমাদের যে পরিমাণ অক্সিজেন প্রয়োজন তা আসে গাছ থেকে। এজন্যে গাছপালা না থাকলে মানুষও বেঁচে থাকতে পারবে না। তাই আমাদের সবারই গাছ লাগানো ও গাছের যত্ন নেয়া উচিত।

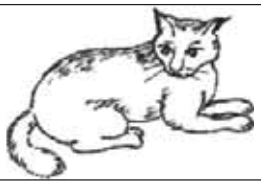
প্রশ্ন-১: দিন দিন গাছপালার পরিমাণ কমে যাওয়ার কারণ কী?

ক) গাছ লাগানোর চেয়ে কম কাটা হচ্ছে বলে
খ) গাছ লাগানোর চেয়ে বেশি কাটা হচ্ছে বলে
গ) গাছের যত্ন ঠিকমত নেয়া হচ্ছে না বলে
ঘ) একই পরিমাণ গাছ লাগানো ও কাটা হচ্ছে বলে

প্রশ্ন-২: গাছপালা না থাকলে কোনটির অভাবে মানুষ বেঁচে থাকতে পারবে না?

ক) হাইড্রোজেন
খ) হিলিয়াম
গ) অক্সিজেন
ঘ) নাইট্রোজেন

৪। নিচের ছবিগুলোর পাশের খালি ঘরগুলিতে কোনটি কিসের ছবি তা লিখুন।

৫। এবার আপনাকে দুটি বাক্য বলা হবে। মনোযোগ দিয়ে শুনে বাক্য দুটি লিখুন।

[পাখি সব করে রব। জরিনা সবজি বাগান করে।]

৬। পাঁচটি বাক্যে শীতকালের বর্ণনা দিন।

৭। নিচের ছবিতে কতটি তারা আছে লিখুন।

গুণে বলতে পেরেছে, লিখতে পারে না ☐

☆	☆	☆	☆	☆
☆	☆	☆	☆	☆
☆	☆	☆	☆	☆
☆	☆	☆	☆	☆
☆	☆	☆	☆	☆
☆	☆			

_____

৮। শূন্যস্থানে কোন সংখ্যাটি বসবে তা লিখুন।

লিখতে পারেনি, বলতে পেরেছে ☐

১৭,১৮, ১৯, ---- , ২১, ২২।

৯। বিয়োগ করুন: উত্তর বলতে পেরেছে ☐

৭৯
— ৩৪

১০। গুণ করুন: উত্তর বলতে পেরেছে ☐

৪২
X ৪

নিচের সমস্যার অঙ্কগুলো পড়ুন। তারপর নিচের খালি জায়গায় সমস্যাগুলোর সমাধান করুন (প্রত্যেকটি স্তর করতে হবে)।

১১। কোন ঝুড়িতে ৫০টি আম ছিল। কিছুদিন পর ঝুড়ির ৬টি আম পচে গেল। বাকি আমগুলো ৪ জনের মধ্যে সমানভাবে ভাগ করে দিলে প্রত্যেকে কয়টি করে আম পাবে?

উত্তর বলতে পেরেছে ☐

১২। একটি ক্লাসের ৪৫ জন ছাত্রের প্রত্যেকে ৭ টাকা করে চাঁদা দিল। এতে যে টাকা উঠল তা ১৫ জন গরিব ছাত্রের মধ্যে সমান ভাবে ভাগ করে দেয়া হল। প্রত্যেকে কত টাকা করে পেল?

উত্তর বলতে পেরেছে ☐

১৩। নিচের ঘড়িতে কয়টা বাজে তা লিখুন।

উত্তর বলতে পেরেছে ☐

এই ঘড়িতে বাজে: ---------- ।

১৪। শিশুর ছবিটি ভালভাবে দেখুন। তারপর কোনটি শিশুর ডান হাত আর কোনটি বাম হাত - তা খালি ঘর দুটিতে লিখুন।

উত্তর বলতে পেরেছে ☐

১৫। মানচিত্রে উত্তর দিক নির্দেশ করা আছে। ফাঁকা ঘরটিতে দিকের নাম লিখুন।

উত্তর বলতে পেরেছে ☐

১৬। নিচে আপনার ঠিকানা লিখুন।

নাম: .....গ্রাম/মহল্লা: .....

ডাকঘর: .....উপজেলা/থানা: .....

জেলা: .....

১৭। রহিম সাহেব বাজারে গিয়ে ৫৩৫ টাকার চাল ও ২৭৫ টাকার ডাল বিক্রি করলেন। ঐ টাকা হতে তিনি ২৩০ টাকায় একটি জামা, ১৫০ টাকায় একটি বই ও ২১০ টাকায় একটি মাছ কিনলেন। নিচের ছক ব্যবহার করে রহিম সাহেবের ঐ দিনের জমা-খরচ তৈরি করুন।

জমা-খরচ

জমা	খরচ
মোট জমা =	মোট খরচ =

তার কাছে রইল =

১৮। নিচের ছবিটি ভালভাবে দেখুন ও পড়ুন। তারপর ছবিটির মূলকথা সংক্ষেপে লিখুন।

উত্তর বলতে পেরেছে ☐

আপনার আশেপাশের প্রতিজন নিরক্ষরকে সাক্ষর করে তুলুন।

প্রাথমিক ও গণশিক্ষা বিভাগ
গণপ্রজাতন্ত্রী বাংলাদেশ সরকার

মূল কথা: .....
.....
.....

সেট: খ

এডুকেশন ওয়াচ ২০১৬
বাংলাদেশের সাক্ষরতা পরিস্থিতি

সনাক্তকরণ

নাম: ..... কোড: .....

গ্রাম/মহল্লা: ..... উপজেলা/থানা: .....

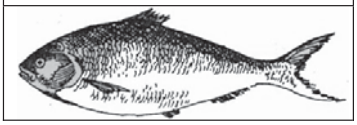
লিঙ্গ: পুরুষ = 1, নারী = 2

ক্লাস্টার নম্বর: ☐☐☐ খানা নম্বর: ☐☐ লাইন নম্বর: ☐☐

স্ট্রাটাম:								
	গ্রামীণ ঢাকা	1	গ্রামীণ চট্টগ্রাম	2	গ্রামীণ রাজশাহী	3
	গ্রামীণ খুলনা	4	গ্রামীণ বরিশাল	5	গ্রামীণ সিলেট	6
	গ্রামীণ রংপুর	7	মেট্রোপলিটন শহর	8	পৌরসভা	9

তথ্যসংগ্রহকারীর নাম: ..... তারিখ: .....
তত্ত্বাবধায়কের নাম: ..... তারিখ: .....

১। নিচের শব্দ দুটি পড়ুন। তারপর প্রতিটি শব্দের সাথে রেখা টেনে ঠিক ছবির মিল করুন।

ইলিশ	
প্রজাপতি	
	

২। নিচের বাক্য দুটি শব্দ করে পড়ুন ।

- নীল আকাশে পাখি ওড়ে। পেরেছে = ১, আংশিক পেরেছে = ২, পারেনি = ৩
- নজরুল আমাদের প্রিয় কবি। পেরেছে = ১, আংশিক পেরেছে = ২, পারেনি = ৩

৩। নিচের লেখাটি ভালভাবে পড়ুন। তারপর প্রত্যেক প্রশ্নের ঠিক উত্তরটিতে টিক (√) চিহ্ন দিন।

কিছুদিন আগেও আমাদের দেশে প্রচুর পরিমাণে পলিথিন ব্যাগ ব্যবহার করা হতো। পলিথিন ব্যাগ পরিবেশের জন্য খুবই ক্ষতিকর। তাই সরকার ২০০২ সালের জানুয়ারি মাস থেকে এর ব্যবহার বন্ধ ঘোষণা করেছেন। যেখানে সেখানে ফেলে দেওয়া পলিথিন ব্যাগ নালা-নর্দমার মুখ আটকে দেয়। এর ফলে নালা-নর্দমায় পানি জমে যায়। জমে যাওয়া পানিতে মশা-মাছি জন্ম নেয়। পলিথিন ব্যাগ মাটিতে মিশে না বা পচে না। এজন্য মাটির উর্বরতা কমে যায়। পলিথিন ব্যাগ পোঁড়ালে বিষাক্ত ধোঁয়া তৈরি হয় যা স্বাস্থ্যের জন্য খুবই ক্ষতিকর। এখনও সরকারি নিষেধ অমান্য করে কেউ কেউ পলিথিন ব্যাগ ব্যবহার করছেন। আমাদের সবারই উচিত পলিথিন ব্যাগের বদলে কাগজ, কাপড়, চট ও বাঁশের তৈরি জিনিসপত্র ব্যবহার করা।

প্রশ্ন-১: কখন থেকে আমাদের দেশে পলিথিন ব্যাগের ব্যবহার বন্ধ ঘোষণা করা হয়েছে?

ক) জানুয়ারি ২০০২ খ) এপ্রিল ২০০২

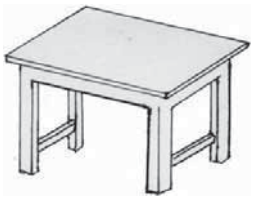
গ) ফেব্রুয়ারি ২০০২ ঘ) মে ২০০২

প্রশ্ন-২: পলিথিন ব্যাগ কীভাবে মশা-মাছি বাড়াতে সাহায্য করে?

ক) পানি ময়লা করে দিয়ে খ) পানি আটকে দিয়ে

গ) পানি পরিষ্কার করে দিয়ে ঘ) পানি বের করে দিয়ে

৪। নিচের ছবিগুলোর পাশের খালি ঘরগুলোতে কোনটি কিসের ছবি তা লিখুন।

৫। এবার আপনাকে দুটি বাক্য বলা হবে। মনোযোগ দিয়ে শুনে বাক্য দুটি লিখুন।

[সবে মিলে করি কাজ। নিজের কাজ নিজে করব।]

৬। পাঁচটি বাক্যে একটি নদীর বর্ণনা দিন।

৭। নিচের ছবিতে কতটি তারা আছে লিখুন। গুণে বলতে পেরেছে, লিখতে পারে না ☐

☆	☆	☆	☆	☆
☆	☆	☆	☆	☆
☆	☆	☆	☆	☆
☆	☆	☆	☆	☆
☆	☆	☆	☆	☆
☆	☆	☆		

_____

৮। **শূন্যস্থানে কোন সংখ্যাটি বসবে তা লিখুন।** লিখতে পারেনি, বলতে পেরেছে ☐

১৬,১৭, ১৮, ----- , ২০, ২১।

৯। **বিয়োগ করুন:** উত্তর বলতে পেরেছে ☐

৭৯
— ৪৩

১০। **গুণ করুন:** উত্তর বলতে পেরেছে ☐

৫২
X ৪

নিচের সমস্যার অঙ্কগুলো পড়ুন। তারপর নিচের খালি জায়গায় সমস্যাগুলোর সমাধান করুন (প্রত্যেকটি স্তর করতে হবে)।

১১। কোন ঝুড়িতে ৫০টি আম ছিল। কিছুদিন পর ঝুড়ির ২টি আম পচে গেল। বাকি আমগুলো ৪ জনের মধ্যে সমানভাবে ভাগ করে দিলে প্রত্যেকে কয়টি করে আম পাবে?

উত্তর বলতে পেরেছে ☐

১২। একটি ক্লাসের ৪৫ জন ছাত্রের প্রত্যেকে ৮ টাকা করে চাঁদা দিল। এতে যে টাকা উঠল তা ১৫ জন গরিব ছাত্রের মধ্যে সমান ভাবে ভাগ করে দেয়া হল। প্রত্যেকে কত টাকা করে পেল?

উত্তর বলতে পেরেছে ☐

১৩। নিচের ঘড়িতে কয়টা বাজে তা লিখুন। উত্তর বলতে পেরেছে ☐

এই ঘড়িতে বাজে: ---------- ।

১৪। শিশুর ছবিটি ভালভাবে দেখুন। তারপর কোনটি শিশুর ডান হাত আর কোনটি বাম হাত - তা খালি ঘর দ লিখুন।

উত্তর বলতে পেরেছে

১৫। মানচিত্রে উত্তর দিক নির্দেশ করা আছে। ফাঁকা ঘরটিতে দিকের নাম লিখুন।

১৬। নিচে আপনার ঠিকানা লিখুন।

নাম: .....গ্রাম/মহল্লা: .....

ডাকঘর: .....উপজেলা/থানা: .....

জেলা: .....

১৭। করিম সাহেব বাজারে গিয়ে ৫৩৫ টাকার চাল ও ২৮৫ টাকার ডাল বিক্রি করলেন। ঐ টাকা হতে তিনি ২৩০ টাকায় একটি জামা, ১৫০ টাকায় একটি পানজাবী ও ২১০ টাকায় একটি মাছ কিনলেন। নিচের ছক ব্যবহার করে করিম সাহেবের ঐ দিনের জমা-খরচ তৈরি করুন।

জমা-খরচ

জমা	খরচ
মোট জমা =	**মোট খরচ =**

১৮। নিচের ছবিটি ভালভাবে দেখুন ও পড়ুন। তারপর ছবিটির মূলকথা সংক্ষেপে লিখুন।

উত্তর বলতে পেরেছে ☐

আপনার আশেপাশের প্রতিজন নিরক্ষরকে সাক্ষর করে তুলুন।

প্রাথমিক ও গণশিক্ষা বিভাগ
গণপ্রজাতন্ত্রী বাংলাদেশ সরকার

মল কথা: .....
.....
.....

Annex 2.5
Score plan for literacy assessment

	Item	Score	Description
	Reading Skills	**25**	
1	Words	6	Correct = 3, Incorrect = 0) x 2
2	Sentences	9	(Full = 4.5, Partial = 1.5, Can't = 0) x 2
3	Comprehension passage	10	(Correct = 5, Incorrect = 0) x 2
	Writing Skills	**25**	
4	Words	6	(Full = 3, Partial = 1, Can't = 0) x 2
5	Sentences	9	(Full = 4.5, Partial = In between 0.5 to 4, Can't = 0) x 2
6	Description of a given object (in five sentences)	10	A continuous case. Approximately 2 for each correct sentence. (Construction of sentence, communication skills, presentation skills, spelling are major areas in assessment process.)
	Numeracy Skills	**25**	
7	Counting objects	3	Oral correct answer = 1, Written correct = 3
8	Finding of missing number	3	Oral correct answer = 1, Written correct = 3
9	Simple subtraction	4	Correct = 4, Oral correct answer = 1, Incorrect = 0
10	Simple multiplication	5	Correct = 5, Oral correct answer = 1, Incorrect = 0
11	Problem solving: Subtraction and Division	5	Oral correct answer = 1 Written correct answer = 2 Correct answer with all steps = 4 Correct answer with all steps and description = 5
12	Problem solving: Multiplication and Division	5	Oral correct answer = 1 Written correct answer = 2 Correct answer with all steps = 4 Correct answer with all steps and description = 5
	Application of 3R's	**25**	
13	Recognising time	3	Oral correct answer = 1, Written correct = 3
14	Recognising right and left hand	3	Oral correct answer = 1, Written correct = 3
15	Map	4	Oral correct answer = 1, Written correct = 3
16	Address	5	Five points, 1 for each point.
17	Balance sheet	6	For three sums = 4.5 (1.5 x 3) Description = 1.5
18	Billboard	4	Oral correct answer = 1 Communication of message in writing = 4

Note: Spelling is not important for numeracy and application skills.

Annex 2.6
Determination of sample size

Following formula was was used in determining the sample size (Cochran 1977, Kalton 1983).

$$n = \frac{z^2 \times p \times q}{\alpha^2} \times d$$

Where, n is the sample size to be determined, p is the probability of an individual be placed in a certain category of literacy, q (1-p) is the probability of an individual not to be placed in that category, z is the value of the standard normal variable that would provide under certain confidence limit, α is the desire level of precision, and d is the design effect.

$$\text{Calculation of sample size for a single estimate} = \frac{(1.96)^2 \times 0.5 \times 0.5}{(0.05)^2} \times 1.5 = 384 \times 1.5 = 576$$

Estimated sample size for a stratum = 576 x 2 = 1,152 [due to separate estimates by gender]
Sample size for the study = 1,152 x 9 = 10,368 [nine strata]

Annex 2.7
Calculation of weights for different stratum

The problem arose with considering an equal size of sample for each stratum, however population size is not equal. Thus a weighting factor needs to be used to have pooled estimates for rural Bangladesh, urban Bangladesh and the national level. Following formula was used for the purpose.

$P = \Sigma S_i \times W_i$
Where, P is the polled estimate, S_is are the estimates for different strata, and W_is are the weights.

Latest available census information (Census 2011 by the Bangladesh Bureau of Statistics) was used to find the weights each of the stratum. Here the weights are nothing but the proportions of population in different strata adjusted with number of strata. The following table provides this information in summary.

Stratum	Population	Proportion of population			Weights		
		National	Rural	Urban	National	Rural	Urban
Rural Dhaka	34708621	0.242	0.298		2.178	2.086	
Rural Chittagong	22654324	0.157	0.194		1.413	1.358	
Rural Rajshahi	15442859	0.107	0.132		0.963	0.924	
Rural Khulna	13395759	0.093	0.115		0.837	0.805	
Rural Barisal	7376822	0.051	0.063		0.459	0.441	
Rural Sylhet	8811987	0.061	0.076		0.549	0.532	
Rural Rangpur	14184536	0.098	0.122		0.882	0.854	
Metropolitan cities	11658602	0.081		0.424	0.729		0.848
Municipalities	15810187	0.110		0.576	0.990		1.152
Total	144043697	1.000	1.000	1.000	9.000	7.000	2.000

Notes: Metropolitan cities includes City Corporation and restricted area. Municipalities are the *Pourasavas*. Areas under the category of 'other urban areas' called by BBS are considered as rural areas.

Data source: *Population & Housing Census-2011 (National Volume-2: Union Statistics) Report*. Bangladesh Bureau of Statistics, Statistics and Information Division, Ministry of Planning, Government of the Peoples Republic of Bangladesh, March 2014.

Annex 3.1

Percentage distribution of respondents by Residence, gender and literacy levels

Residence	Sample size	Literacy levels			
		Non-literate	Semi-literate	Literate - initial	Literate-advanced
Rural Bangladesh					
Males	4,087	39.0	9.0	22.4	29.6
Females	4,732	42.1	10.8	27.6	19.5
Urban Bangladesh					
Males	1,148	30.5	7.3	23.7	38.6
Females	1,313	32.5	10.7	27.4	29.4
All Bangladesh					
Males	5,235	37.4	8.6	22.6	31.3
Females	6,045	40.3	10.8	27.5	21.4

Source: Education Watch National Literacy Test, 2016

Annex 3.2

Percentage distribution of respondents by strata and literacy levels

Strata	Sample size	Literacy levels			
		Non-literate	Semi-literate	Literate-initial	Literate-advanced
Rural Dhaka Division	1,267	41.7	10.0	25.5	22.8
Rural Chittagong Division	1,250	44.8	9.8	23.8	21.6
Rural Rajshahi Division	1,251	37.0	10.1	24.5	28.4
Rural Khulna Division	1,215	37.7	8.4	24.2	29.7
Rural Barisal Division	1,251	31.4	11.3	25.1	32.2
Rural Sylhet Division	1,355	40.8	11.2	27.2	20.8
Rural Rangpur Division	1,230	43.1	9.6	27.1	20.2
City corporations	1,203	28.7	8.0	26.5	36.8
Municipalities	1,258	33.5	9.9	25.0	31.5
Rural Bangladesh	8,819	40.7	9.9	25.2	24.2
Urban Bangladesh	2,461	31.6	9.1	25.6	33.7
All Bangladesh	11,280	39.0	9.8	25.3	26.0

Source: Education Watch National Literacy Test, 2016

Annex 3.3

Percentage distribution of respondents by literacy levels, components of literacy and gender

Levels of literacy	Components of literacy								Literacy	
	Reading		Writing		Numeracy		Application			
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
Non-literate	35.1	36.7	43.0	45.1	41.2	48.0	38.9	45.4	37.4	40.3
Semi-literate	4.9	5.0	10.1	9.7	9.5	12.4	16.8	23.5	8.6	10.8
Literate										
Initial level	5.6	6.5	22.4	21.2	16.1	19.0	21.9	18.3	22.6	27.5
Advanced level	54.4	51.8	24.5	24.1	33.2	20.6	22.3	12.8	31.3	21.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Sample size: Males 5,235, Females 6,045

Source: Education Watch National Literacy Test, 2016

Annex 3.4

Percentage distribution of respondents by literacy levels, components of literacy and residence

Levels of literacy	Components of literacy								Literacy	
	Reading		Writing		Numeracy		Application			
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Non-literate	37.6	29.0	45.9	36.3	46.4	38.4	44.2	35.0	40.7	31.6
Semi-literate	5.1	4.2	10.4	7.7	11.4	9.6	20.5	19.8	9.9	9.1
Literate										
Initial level	6.0	6.4	21.1	24.3	17.4	18.6	19.5	21.7	25.2	25.6
Advanced level	51.3	60.4	22.6	31.6	24.8	33.4	15.8	23.5	24.2	33.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Sample size: Rural 8,819, Urban 2,461

Source: Education Watch National Literacy Test, 2016

Annex 3.5

Percentage of respondents having at least initial level of literacy skills by residence, gender and literacy components

Residence and gender	Sample size	Components of literacy			
		Reading	Writing	Numeracy	Application of 3Rs
Rural Bangladesh					
Males	4,087	58.2	44.4	47.5	42.5
Females	4,732	56.6	43.1	37.6	29.2
Level of significance		ns	ns	p<0.001	p<0.001
Urban Bangladesh					
Males	1,148	67.9	57.6	56.5	52.0
Females	1,313	69.8	54.6	48.0	39.4
Level of significance		ns	ns	p<0.001	p<0.001

Source: Education Watch National Literacy Test, 2016

Annex 3.6

Percentage of respondents having at least initial level of skills by strata and literacy components

Strata	Sample size	Components of literacy			
		Reading	Writing	Numeracy	Application of 3Rs
Rural Dhaka Division	1,267	57.1	41.2	41.6	34.0
Rural Chittagong Division	1,250	53.0	39.0	38.4	33.2
Rural Rajshahi Division	1,251	60.4	46.5	46.9	39.5
Rural Khulna Division	1,215	60.1	50.3	46.7	40.7
Rural Barisal Division	1,251	65.1	54.7	47.2	43.2
Rural Sylhet Division	1,355	57.4	44.4	39.0	31.8
Rural Rangpur Division	1,230	54.6	42.4	39.8	30.6
City corporations	1,203	70.6	58.9	54.9	49.6
Municipalities	1,258	64.1	53.8	49.8	42.1
Level of significance		p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch National Literacy Test, 2016

Annex 3.7

Item-wise analysis by gender and residence

Reading items	Gender		Residence		All
	Males	Females	Rural	Urban	
Reading words					
Set A: Lily	67.6	67.9	66.2	74.1	67.8
Jackfruit	67.6	67.9	66.2	74.2	67.8
Set B: Hilsha	68.2	64.5	64.6	73.5	66.2
Butterfly	67.7	64.5	64.3	73.1	65.9
Reading sentences[1]					
Set A: The fishermen are fishing in the river.	68.2	59.0	57.1	65.1	58.6
Our flag has green and red colours.	57.9	58.2	56.4	64.9	58.1
Set B: Birds fly in the blue sky.	60.6	57.3	56.8	67.6	58.8
Nazrul is our favourite poet.	58.6	54.9	54.6	65.2	56.6
Comprehension passage					
Set A: Question 1	43.5	38.2	38.8	48.4	40.7
Question 2	53.8	52.9	51.7	59.9	53.3
Set B: Question 1	54.8	50.6	50.6	60.9	52.6
Question 2	40.2	35.5	35.7	46.2	37.7

[1] More 5-6% of the respondents could read the sentences partially

Source: Education Watch National Literacy Test (2016)

Writing items	Gender		Residence		All
	Males	Females	Rural	Urban	
Writing words					
Set A: Cat	44.8	47.0	44.9	52.9	46.0
Plough	35.1	31.1	31.3	39.9	32.9
Set B: Table	52.3	48.6	48.0	60.4	50.3
Pail	41.0	38.1	37.1	49.5	39.4
Writing sentence					
Set A: Birds are singing	43.0	44.9	42.2	51.9	44.0
Jarina is doing home gardening	40.1	40.3	37.1	45.4	40.2
Set B: We work together.	46.0	42.4	41.6	54.9	44.1
I shat do my work.	33.7	32.3	31.3	40.4	32.9
Writing description					
Set A: Winter	42.5	42.4	41.2	47.7	42.4
Set B: River	44.8	42.4	41.9	50.3	43.5

* More 10% could write cat with some mistakes, such rate is 15% for plough, 7.4% for table, and 14.5% for pail.

** In addition to this, proportion of respondents could write the sentences with some mistakes is 17% for first sentence, 21% for second sentence, 15% for third sentence, and 25.7% for fourth sentence.

Source: Education Watch National Literacy Test (2016)

Numeracy items	Gender		Residence		All
	Males	Females	Rural	Urban	
Counting objects					
Can express the correct number in writing	67.8	61.8	63.0	71.4	64.6
Can express the correct number orally	26.8	30.8	30.4	22.8	29.0
Finding out a missing number					
Can express the correct number in writing	67.2	61.5	62.2	72.3	64.1
Can express the correct number orally	5.8	3.5	4.5	4.7	4.5
Basic rules of arithmetic					
Subtraction	55.5	48.3	50.2	57.8	51.6
Multiplication	48.4	39.9	42.1	51.3	43.8
Problem solving: subtraction and division					
Know all the steps	28.8	19.3	22.4	29.4	23.7
Know only the correct answer	15.9	10.8	12.7	14.8	13.1
Problem solving: multiplication and division					
Know all the steps	25.8	14.8	18.7	25.0	19.6
Know only the correct answer	4.5	1.6	2.6	4.2	2.9

Source: Education Watch National Literacy Test (2016)

Application of the 3Rs items	Gender		Residence		All
	Males	Females	Rural	Urban	
Recognition of time					
Can express the correct answer in writing	56.1	41.5	45.7	59.0	48.2
Can express the correct answer orally	12.1	3.9	7.2	9.9	7.7
Recognition of left and right hand					
Can express the correct answer in writing	59.4	55.4	55.5	64.8	57.2
Can express the correct answer orally	34.2	36.2	36.8	28.6	35.3
East/West direction of the map of Bangladesh					
Can express the correct answer in writing	40.0	26.7	32.0	36.8	32.9
Can express the correct answer orally	19.8	15.9	18.4	14.5	17.7
Writing address*					
Own name	69.8	67.8	67.2	75.5	68.8
Village/mahalla name	54.7	49.2	50.4	57.6	51.8
Name of post office	51.0	45.1	46.6	53.1	47.8
Name of upazila/thana/ward	50.3	44.9	45.8	54.1	47.4
Name of district	50.0	45.4	45.7	55.5	47.5
Preparation of balance sheet	34.2	13.2	26.6	35.9	28.4
Understanding billboard	25.7	24.7	23.8	31.1	25.1

* More 6-7% could write these with some mistakes

Source: Education Watch National Literacy Test (2016)

Annex 3.8

Age-specific literacy rate by gender

Age groups	Gender			Difference (Females – Males)
	Males	Females	Both	
11 – 14	76.5	79.7	78.1	3.2
15 – 19	78.3	82.4	80.5	4.5
20 – 24	65.1	67.9	67.0	2.8
25 – 29	59.7	61.4	60.7	1.7
30 – 34	51.0	46.1	48.2	-4.9
35 – 39	46.8	35.0	40.3	-11.8
40 – 44	41.1	24.8	32.1	-16.3
45 – 49	41.8	28.8	35.5	-13.0
50 – 54	34.2	12.8	23.0	-21.4
55 – 59	36.2	12.9	25.0	-23.3
60 – 64	28.3	10.5	21.2	-17.8
65 – 69	36.3	9.5	24.4	-26.8
70 – 74	42.5	4.2	24.9	-38.3
75+	23.9	0.8	13.2	-23.1

Source: Education Watch National Literacy Test, 2016

Annex 3.9

Age-specific literacy rate by residence

Age groups	Residence			Difference (Rural – Urban)
	Rural	Urban	Both	
11 – 14	77.5	80.6	78.1	-3.1
15 – 19	80.1	82.3	80.5	-2.2
20 – 24	64.7	76.4	67.0	-11.7
25 – 29	58.6	67.7	60.7	-9.1
30 – 34	47.1	52.7	48.2	-5.6
35 – 39	36.2	56.1	40.3	-19.9
40 – 44	28.4	47.4	32.1	-19.0
45 – 49	34.3	40.4	35.5	-6.1
50 – 54	20.2	37.2	23.0	-17.0
55 – 59	24.2	30.2	25.0	-6.0
60 – 64	19.2	31.3	21.2	-12.1
65 – 69	21.8	33.8	24.4	-12.0
70 – 74	16.0	26.2	24.9	-10.2
75+	12.1	18.4	13.2	-6.3

Source: Education Watch National Literacy Test, 2016

Annex 3.10

Percentage of respondentshaving at least initial level of skills invarious components of literacy by current enrolment status

Components of literacy	Current enrolment status		
	Currently enrolled (2,607)	Dropped out (6,155)	Never enrolled (2,518)
Reading	95.0	69.3	1.0
Writing	84.9	49.6	0.3
Numeracy	80.0	47.7	0.8
Application of 3Rs	64.4	41.9	0.1
Literacy	89.5	57.3	0.4

Figures in the parentheses indicate number of individuals under test

Source: Education Watch National Literacy Test, 2016

Annex 3.11

Literacy rate of respondentsby gender, residence and current enrolment status

Gender/ residence	Sample size	Current enrolment status		
		Currently enrolled	Dropped out	Never enrolled
Gender				
Males	5,235	89.5	59.2	0.5
Females	6,045	89.6	55.7	0.3
Residence				
Rural	8,819	88.2	55.8	0.4
Urban	2,461	95.3	62.9	0.7
All	11,280	89.5	57.3	0.4

Source: Education Watch National Literacy Test, 2016

Annex 3.12

Literacy rate of respondents by mothers' education and residence

Mothers' education	Residence		All	Level of significance
	Rural	Urban		
Nil	36.5 (5,259)	40.3 (1,256)	37.1 (6,515)	p<0.05
Classes I – IV	71.9 (1,195)	78.2 (287)	73.0 (1,482)	p<0.05
Classes V – IX	82.1 (1,649)	87.8 (618)	83.5 (2,267)	p<0.001
Classes X+	86.0 (179)	95.4 (161)	89.5 (340)	p<0.01
Level of significance	p<0.001	p<0.001	p<0.001	

Figures in the parentheses indicate number of individuals under test

Source: Education Watch National Literacy Test, 2016

Annex 3.13

Literacy rate of respondents by fathers' education and residence

Fathers' education	Residence		All	Level of significance
	Rural	Urban		
Nil	34.5 (4,468)	40.3 (1,037)	35.4 (5,505)	p<0.001
Classes I – IV	70.1 (1,106)	75.1 (250)	70.9 (1,355)	ns
Classes V – IX	71.1 (1,817)	75.9 (568))	72.2 (2,385)	p<0.05
Classes X+	79.1 (781)	84.5 (448)	80.8 (1,229)	p<0.05
Level of significance	p<0.001	p<0.001	p<0.001	

Figures in the parentheses indicate number of individuals under test

Source: Education Watch National Literacy Test, 2016

Annex 3.14

Percentage of respondents having at least initial level of skills in various components of literacy by mothers' education

Mothers' education	Sample size	Components of literacy			
		Reading	writing	Numeracy	Application
Nil	6,515	45.7	32.0	31.6	26.1
Classes I – IV	1,482	81.2	66.2	62.0	52.1
Classes V – IX	2,267	89.6	78.0	72.8	62.3
Classes X+	340	93.2	87.7	80.2	76.6
Level of significance		p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch National Literacy Test, 2016

Annex 3.15

Percentage of respondents having at least initial level of skills in various components of literacy by fathers' education

Fathers' education	Sample size	Components of literacy			
		Reading	Writing	Numeracy	Application
Nil	5,505	43.9	30.3	29.9	24.2
Classes I – IV	1,355	79.8	62.7	59.7	48.9
Classes V – IX	2,385	79.2	67.5	63.1	54.4
Classes X+	1,229	86.0	76.2	72.4	66.4
Level of significance		p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch National Literacy Test, 2016

Annex 3.16

Literacy rate of respondents by yearly food security status of households and residence

HH food security status	Residence		All	Level of significance
	Rural	Urban		
Always in deficit	42.7 (469)	55.7 (64)	44.0 (533)	ns
Sometimes in deficit	39.8 (2031)	47.2 (379)	40.8 (2410)	p<0.01
Breakeven	47.7 (3150)	53.6 (990)	48.9(4140)	p<0.001
Surplus	57.9 (3169)	69.8 (1028)	60.4 (4197	p<0.001
Level of significance	p<0.001	p<0.001	p<0.001	

Figures in the parentheses indicate number of individuals under test

Source: Education Watch National Literacy Test, 2016

Annex 3.17

Percentage of respondents having at least initial level of skills in various components of literacy by yearly food security status of households

HH food security status	Sample size	Components of literacy			
		Reading	writing	Numeracy	Application
Always in deficit	533	52.0	37.3	38.1	29.6
Sometimes in deficit	2410	50.2	36.6	35.2	27.7
Breakeven	4140	57.0	43.9	41.6	35.2
Surplus	4197	67.0	54.5	52.2	45.5
Level of significance		p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch National Literacy Test, 2016

Annex 3.18

Literacy rate by household wealth ranking, gender and residence

Household wealth ranking	Gender		Residence		All
	Males	Females	Rural	Urban	
Poorest (20%)	34.7	32.7	33.5	34.1	33.6
Poor (20%)	45.5	42.9	41.7	54.9	44.1
Middle (20%)	54.4	50.4	49.6	63.8	52.3
Rich (20%)	63.4	57.2	58.3	66.9	60.1
Richest (20%)	73.4	65.2	67.1	78.2	69.2
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch National Literacy Test, 2016

Annex 3.19

Literacy rate by household wealth ranking and various components of literacy

Household wealth ranking	Components of literacy			
	Reading	Writing	Numeracy	Application of 3Rs
Poorest (20%)	43.0	30.0	28.6	22.3
Poor (20%)	53.3	39.8	36.2	30.6
Middle (20%)	60.0	46.4	44.5	37.2
Rich (20%)	67.1	53.8	51.2	44.0
Richest (20%)	74.6	63.1	63.4	55.6
Significance	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch National Literacy Test, 2016

Annex 3.20

Percentage distribution of household heads by literacy levels, gender and residence

Levels of literacy	Gender of heads		Residence		All (3,412)
	Males (2,896)	Females (516)	Rural (2,665)	Urban (747)	
Non-literate	51.0	49.1	52.7	42.1	50.7
Semi-literate	8.8	11.2	9.3	8.4	9.1
Initial-literate	17.3	26.7	18.6	19.6	18.8
Advanced-literate	22.9	13.0	19.4	29.9	21.4
Total	100.0	100.0	100.0	100.0	100.0

Figures in the parentheses indicate number of individuals under test

Source: Education Watch National Literacy Test, 2016

Annex 3.21

Percentage distribution of household heads by strata and literacy levels

Strata	Sample size	Literacy levels			
		Non-literate	Semi-literate	Literate-initial	Literate-advanced
Rural Dhaka Division	379	56.5	9.5	17.7	16.4
Rural Chittagong Division	377	53.8	10.1	21.5	14.6
Rural Rajshahi Division	384	47.4	9.1	15.9	27.6
Rural Khulna Division	375	47.7	7.5	16.3	28.5
Rural Barisal Division	380	43.7	8.4	21.3	26.6
Rural Sylhet Division	387	53.0	9.8	21.4	15.8
Rural Rangpur Division	383	56.9	9.4	18.3	15.4
City corporations	378	37.6	6.1	21.7	34.7
Municipalities	369	45.5	10.3	17.9	26.3

Source: Education Watch National Literacy Test, 2016

Annex 3.22

Literacy rate of respondents by gender of household head and residence

Gender of household head	Residence		Both	Level of significance
	Rural	Urban		
Male	48.8	58.1	50.5	p<0.001
Female	53.3	66.5	56.2	p<0.001
All	49.4	59.3	51.3	p<0.001
Level of significance	p<0.01	p<0.01	p<0.001	

Source: Education Watch National Literacy Test, 2016

Annex 3.23

Percentage distribution of adults (15 years and above) by literacy level, gender and residence

Levels of literacy	Gender		Residence		All
	Males	Females	Rural	Urban	
Non-literate	41.6	44.7	45.3	34.5	43.3
Semi-literate	8.3	10.6	9.6	9.2	9.6
Literate					
Initial level	19.8	24.8	22.3	23.3	22.5
Advanced level	30.4	19.9	22.8	33.0	24.7
Total	100.0	100.0	100.0	100.0	100.0

Source: Education Watch National Literacy Test, 2016

Annex 3.24

Percentage of adults (15 years and above) having at least initial level of skills by various components of literacy and gender

Components	Gender		Both	Level of significance
	Males	Females		
Reading	56.0	53.9	54.9	p<0.05
Writing	43.2	41.1	42.1	p<0.05
Numeracy	46.2	35.9	40.6	p<0.001
Application	43.2	29.7	35.8	p<0.001

Source: Education Watch National Literacy Test, 2016

Annex 3.25

Percentage of adults (15 years and above) having at least initial level of skills by various components of literacy and residence

Components	Residence		Both	Level of significance
	Rural	Urban		
Reading	52.8	63.8	54.9	p<0.001
Writing	39.6	52.9	42.1	p<0.001
Numeracy	38.6	49.2	40.6	p<0.001
Application	33.9	44.3	35.8	p<0.001

Source: Education Watch National Literacy Test, 2016

Annex 3.26

Percentage distribution of youth (15–24 years) by literacy levels and components of literacy

Levels of literacy	Components of literacy				Literacy
	Reading	Writing	Numeracy	Application of 3Rs	
Non-literate	12.9	19.6	22.5	18.4	14.9
Semi-literate	3.7	10.9	13.0	26.1	10.2
Literate					
Initial level	6.2	26.2	24.2	27.8	32.3
Advanced level	77.3	43.2	40.3	27.6	42.7
Total	100.0	100.0	100.0	100.0	100.0

Source: Education Watch National Literacy Test, 2016

Annex 3.27

Youth (15–24 years) literacy rate by strata and gender

Strata	Gender			Level of significance
	Males	Females	Both	
Rural Dhaka Division	69.3	78.9	75.1	p<0.01
Rural Chittagong Division	67.8	60.3	63.0	ns
Rural Rajshahi Division	77.3	83.0	80.4	ns
Rural Khulna Division	75.6	81.6	79.0	ns
Rural Barisal Division	77.6	76.7	77.0	ns
Rural Sylhet Division	69.3	75.0	72.6	ns
Rural Rangpur Division	74.5	76.3	75.5	ns
City corporations	76.7	76.5	76.6	ns
Municipalities	84.7	79.7	81.7	ns
Level of significance	p<0.05	p<0.001	p<0.001	

Source: Education Watch National Literacy Test, 2016

Annex 3.28

Percentage distribution of youth (15–24 years) having at least initial level of skills by various components of literacy and gender

Components	Gender		Both	Level of significance
	Males	Females		
Reading	79.1	86.4	83.4	p<0.001
Writing	66.6	71.4	69.4	p<0.01
Numeracy	67.8	62.2	64.5	p<0.01
Application	59.8	52.5	55.5	p<0.001
Literacy	73.9	75.7	75.0	ns

Source: Education Watch National Literacy Test, 2016

Annex 3.29

Percentage distribution of youth (15 – 24 years) having at least initial level of skills by various components of literacy and residence

Components	Residence		Both	Level of significance
	Rural	Urban		
Reading	82.7	86.3	83.4	p<0.05
Writing	67.7	76.7	69.4	p<0.001
Numeracy	63.2	69.8	64.5	p<0.01
Application	53.4	63.9	55.5	p<0.001
Literacy	73.8	79.9	75.0	p<0.01

Source: Education Watch National Literacy Test, 2016

Annex 3.30

Percentage distribution of elderly respondents (60 years and above) by literacy levels, gender and residence

Levels of literacy	Gender		Residence		All (1,233)
	Males (699)	Females (534)	Rural (1,004)	Urban (229)	
Non-literate	61.0	88.5	74.6	65.4	73.1
Semi-literate	7.5	4.6	5.9	7.6	6.2
Initial-literate	12.8	5.1	9.2	10.5	9.4
Advanced-literate	18.7	1.8	10.3	16.5	11.3
Total	100.0	100.0	100.0	100.0	100.0

Figures in the parentheses indicate number of individuals under test

Source: Education Watch National Literacy Test, 2016

Annex 3.31

Percentage distribution of elders by strata and literacy levels

Strata	Sample size	Literacy levels				Literate elders
		Non-literate	Semi-literate	Literate-initial	Literate-advanced	
Rural Dhaka Division	165	81.2	3.6	6.1	9.1	15.2
Rural Chittagong Division	155	71.6	10.3	9.7	8.4	18.1
Rural Rajshahi Division	93	67.7	7.5	9.7	15.1	24.7
Rural Khulna Division	120	68.3	5.8	6.7	19.2	25.8
Rural Barisal Division	183	63.4	7.1	16.9	12.6	29.5
Rural Sylhet Division	156	79.5	3.8	7.1	9.6	16.7
Rural Rangpur Division	132	74.2	4.5	15.9	5.3	21.2
City corporations	89	74.2	3.4	9.0	13.5	22.5
Municipalities	140	61.4	9.3	11.4	17.9	29.3
All	1,233	73.1	6.2	9.4	11.3	20.7

Source: Education Watch National Literacy Test, 2016

Annex 3.32

Percentage distribution of households by literacy status of the members and strata

Strata	Sample size	Literacy status of HHs			
		No literate member	A section literate	All literate members	Literate households
Rural Dhaka Division	390	18.5	66.6	14.9	81.5
Rural Chittagong Division	390	27.2	58.2	14.6	72.8
Rural Rajshahi Division	390	16.9	60.0	23.1	83.1
Rural Khulna Division	390	15.6	63.4	21.0	84.4
Rural Barisal Division	390	16.2	55.6	28.2	83.8
Rural Sylhet Division	390	25.1	61.6	13.3	74.9
Rural Rangpur Division	390	22.1	62.8	15.1	77.9
City corporations	390	15.1	45.4	39.5	84.9
Municipalities	390	16.4	59.5	24.1	83.6
All	3,510	19.5	60.6	19.9	80.5

Source: Education Watch National Literacy Test, 2016

Annex 3.33

Measurement of variables used in regression analysis

Variables	Measurement
Dependent variable	
Literacy status	1 = literate, 0 = not literate
Explanatory variables	
Age	11 – 105 (in years)
Education	0 – 12 (years of schooling completed)
Gender	1 = female, 2 = male
Religion	1 = Muslim, 2 = Non-Muslim
Ethnicity	1 = Bangali, 2 = Small ethnic groups
Residence	1 = rural, 2 = urban
Mothers' education	0 – 12 (years of schooling completed)
Household wealth	0 – 19 (number of assets owned by households)
Gender of household head	1 = male, 2 = female
Literacy status of household head	1 = not-literate, 2 = literate

Annex 4.1

Percentage of eligible respondents having TVET by strata and gender

Strata	Gender		Both	Level of significance
	Males	Females		
Rural Dhaka division	8.7 (103)	1.7 (118)	5.0 (221)	p<0.05
Rural Chittagong division	7.3 (96)	5.9 (152)	6.5 (248)	ns
Rural Rajshahi division	10.8 (158)	8.7 (126)	9.9 (184)	ns
Rural Khulna division	14.6 (123)	5.1 (98)	10.4 (221)	p<0.05
Rural Barisal division	8.3 (121)	4.3 (163)	6.0 (284)	ns
Rural Sylhet division	4.8 (104)	0.0 (126)	2.2 (230)	p<0.05
Rural Rangpur division	6.6 (137)	5.4 (112)	6.0 (249)	ns
City corporations	7.0 (201)	1.5 (199)	4.2 (400)	p<0.01
Municipalities	10.4 (164)	5.6 (179)	7.9 (343)	ns
Significance	p<0.01	p<0.01	p<0.01	

Figures in the parentheses indicate number of respondents
Source: Education Watch skills survey, 2016

Annex 4.2

Percentage of respondents having TVET by age group

Age (in years)	Gender		Residence		All
	Males	Females	Rural	Urban	
15 – 19	12.4	6.2	9.4	7.9	9.0
20 – 24	19.8	6.0	10.2	10.6	10.4
25 – 29	12.0	3.2	7.6	4.1	6.6
30 – 34	5.6	1.5	2.4	6.4	3.3
35 – 39	5.1	2.1	3.6	2.5	3.7
40 – 44	3.5	0.0	1.3	5.7	2.4
45 – 49	1.1	0.0	1.2	0.0	0.8
50 – 64	2.0	2.9	0.0	7.1	2.2
All	8.9	4.2	6.6	6.3	6.5

Source: Education Watch skills survey, 2016

Annex 4.3

Percentage of respondents received TVET by mothers' education, gender and residence

Mothers education	Gender		Residence		All
	Males	Females	Rural	Urban	
Nil	6.1	5.5	5.5	7.1	5.8
I – IV	12.4	5.0	8.3	8.9	8.5
V – IX	10.6	2.7	6.5	5.5	6.2
X+	7.9	4.8	9.6	4.0	6.2
Significance	p<0.05	ns	ns	ns	ns
All	8.9	4.2	6.6	6.3	6.5

ns = not significant at p = 0.05
Source: Education Watch skills survey, 2016

Annex 4.4

Percentage of respondents received TVET by fathers' education, gender and residence

Fathers education	Gender		Residence		All
	Males	Females	Rural	Urban	
Nil	7.4	5.6	5.6	10.7	6.6
I – IV	9.1	2.4	6.4	2.8	5.7
V – IX	10.2	5.2	7.5	7.4	7.6
X+	9.3	3.0	6.8	3.8	5.7
Significance	ns	ns	ns	p<0.05	ns
All	8.9	4.2	6.6	6.3	6.5

ns = not significant at p = 0.05
Source: Education Watch skills survey, 2016

Annex 4.5

Percentage of respondents received TVET by household food security status, gender and residence

HH food security status	Gender		Residence		All
	Males	Females	Rural	Urban	
Always in deficit	6.2	6.7	4.5	10.5	6.5
Sometimes in deficit	11.0	5.8	9.1	6.3	8.5
Breakeven	10.6	4.6	7.4	8.1	7.5
Surplus	7.2	3.4	5.4	4.7	5.2
Significance	ns	ns	ns	ns	ns
All	8.9	4.2	6.6	6.3	6.5

ns = not significant at p = 0.05
Source: Education Watch skills survey, 2016

Annex 4.6

Percentage of respondents received short skills training by strata and gender

Strata	Gender		Both	Level of significance
	Males	Females		
Rural Dhaka division	9.7 (578)	6.5 (689)	8.0 (1,267)	p<0.05
Rural Chittagong division	12.3 (553)	5.7 (697)	8.6 (1,250)	p<0.001
Rural Rajshahi division	10.4 (604)	6.6 (647)	8.5 (1,251)	p<0.05
Rural Khulna division	9.0 (576)	10.3 (639)	9.7 (1,215)	ns
Rural Barisal division	11.2 (554)	10.8 (697)	11.0 (1,251)	ns
Rural Sylhet division	8.4 (628)	5.1 (727)	6.6 (1,355)	p<0.05
Rural Rangpur division	8.4 (594)	6.0 (636)	7.2 (1,230)	ns
City corporations	16.4 (573)	13.8 (630)	15.0 (1,203)	ns
Municipalities	14.3 (575)	7.2 (683)	10.4 (1,258)	p<0.001
Significance	p<0.001	p<0.001	p<0.001	

Figures in the parentheses indicate number of respondents
Source: Education Watch skills survey, 2016

Annex 4.7

Percentage of respondents received short skills training by age group

Age (in years)	Gender		Residence		All
	Males	Females	Rural	Urban	
11 – 14	1.5	2.7	2.2	1.6	2.1
15 – 19	10.1	5.9	7.7	8.6	7.8
20 – 24	23.5	12.6	15.3	20.3	16.3
25 – 29	18.3	14.8	15.0	20.3	16.2
30 – 34	15.2	9.4	10.5	17.6	11.9
35 – 39	15.8	9.0	10.5	17.6	12.0
40 – 44	12.0	6.3	8.1	11.9	8.8
45 – 49	11.2	7.6	9.0	11.8	9.4
50 – 54	9.9	4.0	5.9	10.7	6.8
55 – 59	9.7	3.6	6.0	9.5	6.8
60 – 64	5.9	1.6	3.3	8.5	4.2
65 – 69	8.2	0.7	4.6	4.5	4.9
70 – 74	6.2	1.1	3.0	8.1	3.8
75+	2.1	1.6	2.3	0.0	1.9
All	11.0	7.4	8.3	12.3	9.1

Source: Education Watch skills survey, 2016

Annex 4.8

Percentage of respondents received short skills training by broad age group

Age (in years)	Gender		Residence		All
	Males	Females	Rural	Urban	
11 – 29	11.0	8.8	9.2	12.1	9.8
30 – 49	13.8	8.2	9.7	15.1	10.7
50 – 69	8.4	2.9	5.2	9.0	5.8
70+	3.9	1.4	2.9	3.5	2.7
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001
All	11.0	7.4	8.3	12.3	9.1

Source: Education Watch skills survey, 2016

Annex 4.9

Percentage of respondents received short skills training by mothers' education, gender and residence

Mothers education	Gender		Residence		All
	Males	Females	Rural	Urban	
Nil	8.3	5.6	6.7	8.1	6.9
I – IV	11.3	9.0	9.4	12.9	10.1
V – IX	17.8	12.4	13.2	19.1	14.7
X+	26.0	9.4	12.3	25.0	17.2
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001
All	11.0	7.4	8.3	12.3	9.1

Source: Education Watch skills survey, 2016

Annex 4.10

Percentage of respondents received short skills training by fathers' education, gender and residence

Fathers education	Gender		Residence		All
	Males	Females	Rural	Urban	
Nil	6.6	5.1	5.5	7.5	5.8
I – IV	12.3	7.5	10.6	6.6	9.9
V – IX	16.0	10.2	12.1	15.6	12.8
X+	24.1	13.3	15.3	23.1	17.7
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001
All	11.0	7.4	8.3	12.3	9.1

Source: Education Watch skills survey, 2016

Annex 4.11

Percentage of respondents received short skills training by household food security status, gender and residence

HH food security status	Gender		Residence		All
	Males	Females	Rural	Urban	
Always in deficit	7.9	5.8	6.5	9.7	6.7
Sometimes in deficit	8.9	6.7	7.0	12.1	7.7
Breakeven	9.1	8.0	7.7	11.5	8.5
Surplus	14.7	7.5	10.0	13.4	10.7
Significance	p<0.001	ns	p<0.001	ns	p<0.001
All	11.0	7.4	8.3	12.3	9.1

ns = not significant at p = 0.05

Source: Education Watch skills survey, 2016

Annex 4.12

Percentage of respondents received informal/non-formal skills training by strata and gender

Strata	Gender		Both	Level of significance
	Males	Females		
Rural Dhaka division	38.2 (578)	28.6 (689)	33.0 (1,267)	p<0.001
Rural Chittagong division	41.8 (553)	42.2 (697)	42.0 (1,250)	ns
Rural Rajshahi division	68.4 (604)	39.3 (647)	53.3 (1,251)	p<0.001
Rural Khulna division	64.8 (576)	51.8 (639)	57.9 (1,215)	p<0.001
Rural Barisal division	40.3 (554)	26.5 (697)	32.6 (1,251)	p<0.001
Rural Sylhet division	57.8 (628)	49.7 (727)	53.4 (1,355)	p<0.01
Rural Rangpur division	42.4 (594)	18.6 (636)	30.1 (1,230)	p<0.001
City corporations	48.2 (573)	44.8 (630)	46.4 (1,203)	ns
Municipalities	49.6 (575)	37.9 (683)	43.2 (1,258)	p<0.001
Significance	p<0.001	p<0.001	p<0.001	

Figures in the parentheses indicate number of respondents

Source: Education Watch skills survey, 2016

Annex 4.13

Percentage of respondents received informal/non-formal skills training by age-group, gender and residence

Age (in years)	Gender		Residence		All
	Males	Females	Rural	Urban	
11 – 14	6.9	10.2	8.6	8.4	8.6
15 – 19	38.2	29.9	33.8	33.3	33.7
20 – 24	63.5	47.5	52.4	54.9	52.8
25 – 29	64.4	55.4	58.6	60.3	59.0
30 – 34	65.3	48.7	54.2	62.3	55.9
35 – 39	64.2	42.6	51.5	55.1	52.2
40 – 44	58.2	40.4	47.6	51.4	48.3
45 – 49	59.7	37.8	48.4	51.9	49.0
50 – 54	62.0	31.5	46.0	46.3	46.0
55 – 59	50.2	35.3	43.4	40.6	43.0
60 – 64	49.3	29.8	40.7	47.0	41.5
65 – 69	52.9	27.2	41.6	41.2	41.5
70 – 74	45.1	15.8	30.6	37.8	31.7
75+	33.3	21.6	27.9	26.5	27.8
All	48.4	36.6	41.5	44.5	42.0

Source: Education Watch skills survey, 2016

Annex 4.14

Percentage of respondents received informal/non-formal skills training by broad age-group, gender and residence

Age (in years)	Gender		Residence		All
	Males	Females	Rural	Urban	
11 – 29	37.2	35.1	35.5	38.0	36.0
30 – 49	62.2	43.1	50.8	55.7	51.7
50 – 69	53.7	31.6	43.3	43.8	43.3
70+	38.6	19.1	29.2	31.4	29.5
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001
All	48.4	36.6	41.5	44.5	42.0

Source: Education Watch skills survey, 2016

Annex 4.15

Percentage of respondents received informal/non-formal skills training by mothers' education, gender and residence

Mothers education	Gender		Residence		All
	Males	Females	Rural	Urban	
Nil	51.1	35.9	42.6	45.7	43.1
I – IV	40.9	39.0	39.0	44.2	39.9
V – IX	41.5	38.0	39.0	41.1	39.5
X+	39.9	28.2	26.2	45.4	33.7
Significance	p<0.001	p<0.05	p<0.001	ns	p<0.001
All	48.4	36.6	41.5	44.5	42.0

Source: Education Watch skills survey, 2016

Annex 4.16

Percentage of respondents received informal/non-formal skills training by fathers' education, gender and residence

Fathers education	Gender		Residence		All
	Males	Females	Rural	Urban	
Nil	47.9	33.8	40.2	42.5	40.5
I – IV	49.5	35.9	43.7	37.6	42.6
V – IX	46.8	38.6	42.5	45.5	42.4
X+	46.7	42.8	42.4	48.5	44.4
Significance	ns	p<0.001	ns	p<0.05	p<0.05
All	48.4	36.6	41.5	44.5	42.0

Source: Education Watch skills survey, 2016

Annex 4.17

Percentage of respondents received informal/non-formal skills training by household food security status, gender and residence

HH food security status	Gender		Residence		All
	Males	Females	Rural	Urban	
Always in deficit	43.9	28.4	34.6	41.9	35.4
Sometimes in deficit	43.7	36.1	38.7	45.5	39.7
Breakeven	47.4	36.4	40.9	44.2	41.6
Surplus	52.9	38.0	44.7	44.7	44.7
Significance	p<0.001	p<0.05	p<0.001	ns	p<0.001
All	48.4	36.6	41.5	44.5	42.0

ns = not significant at p = 0.05

Source: Education Watch skills survey, 2016

Annex 4.18

Percentage of respondents who learned skills through informal/non-formal ways by source, gender and residence

Source of learning skills	Gender		Residence		All
	Males	Females	Rural	Urban	
Educational institution	1.0	1.3	1.0	2.0	1.2
Govt./non-govt. training institution	12.8	8.1	9.6	14.7	10.6
NGOs	1.7	4.1	2.9	2.4	2.8
Ustad (expert persons), shops	30.3	13.5	20.9	28.8	22.5
Family members, relatives	41.4	54.9	49.8	39.1	47.7
Self-learning	12.6	18.2	15.8	13.0	15.2
Total	100.0	100.0	100.0	100.0	100.0

Figures in the parentheses indicate number of respondents

Source: Education Watch skills survey, 2016

Annex 4.19

Percentage of respondents who learned skills from any person or institution by location, gender and residence

Location	Gender		Residence		All
	Males	Females	Rural	Urban	
Own neighbourhood	60.2	77.8	70.5	59.3	68.2
Own union/word	6.8	5.5	5.9	7.5	6.2
Own upazila/thana	11.7	7.2	8.8	13.1	9.7
Own district	7.3	4.0	5.5	6.8	5.8
Other district	14.0	5.5	9.3	13.3	10.2
Total	100.0	100.0	100.0	100.0	100.0

Figures in the parentheses indicate number of respondents

Source: Education Watch skills survey, 2016

Annex 4.20

Percentage of respondents who learned skills through informal/non-formal ways by source and educational qualification

Source of learning skills	Level of education				
	Nil (1,228)	I – IV (990)	V – VII (1,043)	VIII – IX (782)	X+ (1,007)
Educational institution	0.2	0.2	0.5	1.4	4.8
Govt./non-govt. training institution	2.7	4.5	8.6	11.9	28.8
NGOs	2.2	1.2	4.6	2.4	3.6
Ustad (expert persons), shops	17.8	26.9	27.3	25.8	19.7
Family members, relatives	56.0	50.5	46.3	47.0	33.3
Self-learning	21.2	16.7	12.8	11.5	9.8
Total	100.0	100.0	100.0	100.0	100.0

Figures in the parentheses indicate number of respondents
Source: Education Watch skills survey, 2016

Annex 4.21

Percentage of respondents who learned skills from any person or institution by locationand educational qualification

Location	Level of education				
	Nil (993)	I – IV (832)	V – VII (913)	VIII – IX (691)	X+ (909)
Own neighbourhood	79.2	74.5	68.8	66.4	48.4
Own union/word	4.8	5.9	7.9	6.4	8.4
Own upazila/thana	6.2	6.3	8.5	11.0	17.9
Own district	3.6	2.4	5.7	6.0	11.3
Other district	6.3	10.8	9.1	10.3	13.9
Total	100.0	100.0	100.0	100.0	100.0

Figures in the parentheses indicate number of respondents; Self-learners are excluded from analysis
Source: Education Watch skills survey, 2016

Annex 4.22

Percentage of respondents who learned skills through informal/non-formal ways by reason of learning skills, and educational qualification

Reasons	Level of education				
	Nil	I - IV	V - VII	VIII - IX	X+
To get a job	4.2	7.2	6.2	4.6	17.2
To get promotion	0.1	0.7	0.3	0.4	1.2
To get overseas job	0.5	0.9	1.1	1.1	1.1
To start a business of my own	10.1	9.9	8.9	9.7	8.5
For additional income	62.4	55.4	55.2	49.2	35.6
Family members, relatives advised	9.2	6.3	8.6	6.4	8.1
Ustad, shop owner advised	0.4	0.7	0.6	0.1	0.5
Had no specific reason	12.5	18.2	18.8	28.2	26.8
Others	0.7	0.9	0.3	0.3	0.9
Total	100.0	100.0	100.0	100.0	100.0

Figures in the parentheses indicate number of respondents

Source: Education Watch skills survey, 2016

Annex 4.23

Percentage distribution of respondents who received informal/non-formal skills training by degree of use of such skills in occupation and strata

Strata	Use of skills		
	Fully	Partially	None
Rural Dhaka	25.4	39.5	35.2
Rural Chittagong	22.9	31.0	46.1
Rural Rajshahi	22.3	50.2	27.4
Rural Khulna	19.5	38.1	42.5
Rural Barisal	23.0	31.4	45.6
Rural Sylhet	13.7	26.4	59.9
Rural Rangpur	29.2	49.7	21.1
City corporations	22.4	16.8	60.8
Municipalities	17.5	30.9	51.7
Significance	p<0.001	p<0.001	p<0.001

Source: Education Watch skills survey, 2016

Annex 4.24

Percentage distribution of respondents who received informal/non-formal skills training by level of education, degree of use of skills and gender

Education	Males			Females		
	Fully	Partially	None	Fully	Partially	None
Nil	44.3	35.7	20.0	7.2	44.0	48.7
1 – 4	42.6	33.2	24.2	6.2	33.7	60.1
5 – 7	37.2	36.6	26.2	3.3	42.6	54.1
8 – 9	31.8	33.8	34.4	4.0	34.2	61.8
10+	23.1	33.2	43.7	2.8	27.7	69.5
All	36.8	34.6	28.6	4.8	37.2	58.1

Source: Education Watch skills survey, 2016

Annex 4.25

Percentage distribution of respondents who received informal/non-formal skills training by level of education, degree of use of skills and residence

Education	Rural			Urban		
	Fully	Partially	None	Fully	Partially	None
Nil	29.2	42.5	28.2	26.5	21.0	52.5
1 – 4	27.0	35.7	37.3	24.2	23.2	52.6
5 – 7	19.9	41.7	38.4	17.4	31.0	51.6
8 – 9	16.5	36.1	47.5	17.7	26.9	55.4
10+	14.3	33.8	52.0	13.8	23.2	63.0
All	22.4	38.6	39.0	19.5	24.9	55.6

Source: Education Watch skills survey, 2016

Annex 4.26

Percentage of respondents who were unable to use their skills for income related activities by reasons and educational qualification

Reasons	Level of education				
	Nil	I - IV	V - VII	VIII - IX	X+
Scarcity of skills related job	5.1	5.7	7.5	5.0	7.0
Did not try enough	15.1	18.2	24.4	30.7	26.7
Scarcity of capital (money)	9.2	11.1	13.3	7.5	7.6
Family/social restriction	5.4	6.5	7.3	7.2	5.3
Did not have required education	0.8	0.5	2.0	4.4	4.1
Got other kind of job	26.8	33.2	29.9	35.5	41.1
Health does not permit due to illness	33.2	21.2	12.1	6.4	4.1
Low income in skill related job	3.6	3.0	2.0	1.9	2.1
Still in the process of learning	0.0	0.0	0.5	0.0	1.4
Others	1.0	0.5	1.0	1.4	0.6
Total	100.0	100.0	100.0	100.0	100.0

Source: Education Watch skills survey, 2016

Annex 4.27

Percentage of respondents received informal/non-formal skills training by strata and gender

Strata	Gender		Both	Level of significance
	Males	Females		
Rural Dhaka division	51.6 (345)	52.8 (483)	52.3 (828)	ns
Rural Chittagong division	55.5 (317)	54.0 (398)	54.7 (715)	ns
Rural Rajshahi division	38.7 (186)	45.1 (384)	43.0 (570)	ns
Rural Khulna division	46.4 (196)	41.3 (303)	43.3 (499)	ns
Rural Barisal division	59.4 (318)	57.1 (503)	58.0 (821)	ns
Rural Sylhet division	41.6 (255)	46.9 (358)	44.7 (613)	ns
Rural Rangpur division	54.8 (334)	50.3 (517)	52.1 (851)	ns
City corporations	53.1 (288)	50.3 (346)	51.6 (634)	ns
Municipalities	50.2 (281)	45.7 (418)	47.5 (699)	ns
Significance	p<0.001	p<0.001	p<0.001	

Figures in the parentheses indicate number of respondents
Source: Education Watch skills survey, 2016

Annex 4.28

Percentage of respondents want to acquire informal/non-formal skills training by broad age-group, gender and residence

Age (in years)	Gender		Residence		All
	Males	Females	Rural	Urban	
11 – 29	70.6	76.1	74.0	72.6	73.8
30 – 49	37.1	37.1	36.9	38.3	37.1
50 – 69	16.8	9.1	12.1	14.2	12.5
70+	3.2	0.6	1.8	0.0	1.8
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001
All	48.7	49.8	49.1	50.9	49.4

Note: among those who did not have such skills
Source: Education Watch skills survey, 2016

Annex 4.29

Percentage of respondents want to acquire informal/non-formal skills training by level of education, gender and residence

Level of education	Gender		Residence		All
	Males	Females	Rural	Urban	
Nil	25.3	20.7	22.0	24.8	22.4
I – IV	47.0	47.6	46.3	52.2	47.3
V – VII	65.0	65.4	66.2	60.4	65.2
VIII – IX	60.6	72.2	68.3	66.5	67.8
X+	55.5	77.4	69.8	58.3	66.4
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001
All	48.7	49.8	49.1	50.9	49.4

Note: among those who did not have such skills
Source: Education Watch skills survey, 2016

Annex 4.30

Percentage of respondents want to acquire informal/non-formal skills training by mothers' education, gender and residence

Mothers education	Gender		Residence		All
	Males	Females	Rural	Urban	
Nil	41.1	42.9	42.0	43.0	42.1
I – IV	63.7	65.3	64.3	66.5	64.6
V – IX	63.5	66.6	65.7	64.3	65.3
X+	67.0	72.9	74.8	60.3	70.3
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001
All	48.7	49.8	49.1	50.9	49.4

Note: among those who did not have such skills

Source: Education Watch skills survey, 2016

Annex 4.31

Percentage of respondents want to acquire informal/non-formal skills training by fathers' education, gender and residence

Fathers education	Gender		Residence		All
	Males	Females	Rural	Urban	
Nil	44.5	44.7	44.2	46.8	44.6
I – IV	62.5	63.5	62.8	64.5	63.1
V – IX	54.5	60.2	58.1	57.1	57.8
X+	58.1	58.4	60.2	53.7	58.3
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001
All	48.7	49.8	49.1	50.9	49.4

Note: among those who did not have such skills

Source: Education Watch skills survey, 2016

Annex 4.32

Percentage of respondents want to acquire informal/non-formal skills training by yearly food security status of households, gender and residence

HH food security status	Gender		Residence		All
	Males	Females	Rural	Urban	
Always in deficit	48.4	49.7	48.9	52.9	49.2
Sometimes in deficit	51.8	53.2	51.3	61.7	52.6
Breakeven	48.3	51.0	50.1	48.5	49.9
Surplus	47.1	46.9	46.4	49.0	46.9
Significance	ns	p<0.05	p<0.05	p<0.01	p<0.01
All	48.7	49.8	49.1	50.9	49.4

Note: among those who did not have such skills

Source: Education Watch skills survey, 2016

Annex 4.33

Percentage distribution of respondents having various skills by occupation

Occupation	Various skills		
	TVET	Short course	Informal/ non-formal training
Agriculture	2.1	8.6	14.9
Day labour	0.6	3.6	6.8
Salaried job	11.9	11.2	5.8
Business	7.5	11.1	9.2
Driving	1.0	2.4	2.5
Rikshaw/van/boat pooler	0.0	0.9	1.4
Carpenter/mason/electrician	0.0	4.4	5.0
Fishing	0.0	0.5	0.5
Handicrafts	1.2	0.7	0.9
Household work	12.6	29.9	35.4
Student	54.6	18.3	10.2
Do nothing	0.9	1.2	1.0
Unemployed	4.1	1.4	0.8
Disabled	0.4	0.4	0.7
Retired/elder person	0.8	1.4	2.8
Others	2.0	3.8	2.0
All	100.0	100.0	100.0

Source: Education Watch skills survey, 2016

Annex 5.1

Percentage of respondents having access to cell phone by strata and gender

Strata	Gender		Both	Significance
	Males	Females		
Rural Dhaka division	75.6 (578)	66.9 (689)	70.9 (1267)	p<0.001
Rural Chittagong division	87.2 (553)	75.8 (697)	80.8 (1250)	p<0.001
Rural Rajshahi division	88.1 (604)	75.4 (647)	81.5 (1251)	p<0.001
Rural Khulna division	83.0 (576)	73.9 (639)	78.2 (1215)	p<0.001
Rural Barisal division	79.4 (554)	78.6 (697)	79.0 (1351)	ns
Rural Sylhet division	84.1 (628)	77.3 (727)	80.4 (1355)	p<0.001
Rural Rangpur division	81.0 (594)	74.2 (636)	77.5 (1230)	p<0.01
City corporations	94.1 (573)	86.0 (630)	89.9 (1203)	p<0.001
Municipalities	86.8 (575)	75.4 (683)	80.6 (1258)	p<0.001
Significance	p<0.001	p<0.001	p<0.001	

Source: Education Watch Access to ICTs and Reading Materials Survey, 2016

Annex 5.2

Percentage of respondents having access to computer by strata and gender

Strata	Gender		Both	Significance
	Males	Females		
Rural Dhaka division	5.5 (578)	1.9 (689)	3.6 (1267)	p<0.001
Rural Chittagong division	3.4 (553)	0.6 (697)	1.8 (1250)	p<0.001
Rural Rajshahi division	5.1 (604)	1.1 (647)	3.0 (1251)	p<0.001
Rural Khulna division	5.9 (576)	0.5 (639)	3.0 (1215)	p<0.001
Rural Barisal division	4.9 (554)	1.1 (697)	2.8 (1351)	p<0.001
Rural Sylhet division	5.3 (628)	1.7 (727)	3.3 (1355)	p<0.001
Rural Rangpur division	4.0 (594)	0.2 (636)	2.0 (1230)	p<0.001
City corporations	20.9 (573)	7.3 (630)	13.8 (1203)	p<0.001
Municipalities	10.3 (575)	2.5 (683)	6.0 (1258)	p<0.001
Significance	p<0.001	p<0.001	p<0.001	

Source: Education Watch Access to ICTs and Reading Materials Survey, 2016

Annex 5.3

Percentage of respondents having access to radio by strata and gender

Strata	Gender		Both	Significance
	Males	Females		
Rural Dhaka division	10.2 (578)	5.2 (689)	7.5 (1,267)	p<0.001
Rural Chittagong division	7.6 (553)	2.6 (697)	4.8 (1,250)	p<0.001
Rural Rajshahi division	12.9 (604)	4.8 (647)	8.7 (1,251)	p<0.001
Rural Khulna division	9.0 (576)	2.5 (639)	5.6 (1,215)	p<0.001
Rural Barisal division	7.2 (554)	3.3 (697)	5.0 (1,351)	p<0.001
Rural Sylhet division	4.6 (628)	3.7 (727)	4.1 (1,355)	p<0.001
Rural Rangpur division	5.6 (594)	2.0 (636)	3.7 (1,230)	p<0.001
City corporations	14.7 (573)	7.5 (630)	10.9 (1,203)	p<0.001
Municipalities	8.5 (575)	4.7 (683)	6.4 (1,258)	p<0.001
Significance	p<0.001	p<0.001	p<0.001	

Source: Education Watch Access to ICTs and Reading Materials Survey, 2016

Annex 5.4

Percentage of respondents having access to television by strata and gender

Strata	Gender		Both	Significance
	Males	Females		
Rural Dhaka division	64.5 (578)	46.4 (689)	54.7 (1,267)	p<0.001
Rural Chittagong division	72.7 (553)	57.0 (697)	63.9 (1,250)	p<0.001
Rural Rajshahi division	72.0 (604)	57.7 (647)	64.6 (1,251)	p<0.001
Rural Khulna division	72.7 (576)	55.4 (639)	63.6 (1,215)	p<0.001
Rural Barisal division	51.1 (554)	37.3 (697)	43.4 (1,351)	p<0.001
Rural Sylhet division	55.1 (628)	40.7 (727)	47.4 (1,355)	p<0.001
Rural Rangpur division	64.6 (594)	45.8 (636)	54.9 (1,230)	p<0.001
City corporations	92.8 (573)	87.3 (630)	89.9 (1,203)	p<0.001
Municipalities	83.3 (575)	71.2 (683)	76.7 (1,258)	p<0.001
Significance	p<0.001	p<0.001	p<0.001	

Source: Education Watch Access to ICTs and Reading Materials Survey, 2016

Annex 5.5

Percentage of respondents having access to various ICTs by broad age-group, gender and residence

ICTs/age	Gender		Significance	Residence		Significance
	Males	Females		Rural	Urban	
Access to cell phone						
11 – 29	93.0	91.4	p<0.05	91.6	94.4	p<0.01
30 – 49	90.9	71.0	p<0.001	78.7	86.0	p<0.001
50 – 69	62.6	40.6	p<0.001	50.2	62.9	p<0.001
70+	34.5	14.1	p<0.001	24.4	28.7	ns
Significance	p<0.001	p<0.001		p<0.001	p<0.001	
All	83.4	74.2	p<0.001	77.1	84.5	p<0.001
Access to computer						
11 – 29	11.5	3.0	p<0.001	5.1	13.3	p<0.001
30 – 49	4.8	0.6	p<0.001	1.3	7.3	p<0.001
50 – 69	1.1	0.4	ns	0.5	2.4	p<0.001
70+	0.4	0.0	ns	0.0	1.2	p<0.05
Significance	p<0.001	p<0.001		p<0.001	p<0.001	
All	6.8	1.7	p<0.001	2.9	9.2	p<0.001
Access to radio						
11 – 29	15.7	6.7	p<0.001	9.9	13.2	p<0.01
30 – 49	5.1	2.1	p<0.001	3.2	4.5	ns
50 – 69	2.9	1.5	p<0.05	2.1	2.7	ns
70+	4.3	0.0	p<0.01	2.6	1.2	ns
Significance	p<0.001	p<0.001		p<0.001	p<0.001	
All	9.2	4.1	p<0.001	6.0	8.3	p<0.001
Access to television						
11 – 29	79.5	64.7	p<0.001	67.0	87.9	p<0.001
30 – 49	71.1	51.4	p<0.001	54.9	82.8	p<0.001
50 – 69	57.8	39.3	p<0.001	45.0	70.0	p<0.001
70+	36.6	24.5	p<0.01	27.8	49.4	p<0.001
Significance	p<0.001	p<0.001		p<0.001	p<0.001	
All	70.4	55.0	p<0.001	57.5	82.2	p<0.001

Source: Education Watch Access to ICTs and Reading Materials Survey, 2016

Annex 5.6

Percentage of respondents having access to various ICTs by level of education and gender

Education	Various ICTs and gender							
	Cell phone		Computer		Radio		Television	
	Males	Females	Males	Females	Males	Females	Males	Females
Nil	60.6	40.4	0.0	0.1	1.7	1.6	53.6	38.2
I – IV	83.3	72.5	0.9	0.1	6.7	2.2	67.9	51.4
V – VII	92.5	88.4	4.0	0.7	10.4	4.3	77.2	59.8
VIII – IX	96.8	96.0	9.6	1.7	14.1	6.6	80.8	67.0
X+	97.5	98.1	26.3	9.5	19.1	9.5	83.6	74.0
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001
All	83.4	74.2	6.8	1.7	9.2	4.1	70.4	55.0

Source: Education Watch Access to ICTs and Reading Materials Survey, 2016

Annex 5.7

Percentage of respondents having access to various ICTs by level of education and residence

Education	Various ICTs and residence							
	Cell phone		Computer		Radio		Television	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
Nil	48.6	54.9	0.1	0.0	1.6	1.7	41.1	68.2
I – IV	76.7	83.6	0.4	1.1	4.3	4.6	55.4	79.6
V – VII	89.7	92.3	1.6	4.9	6.7	7.9	63.3	85.8
VIII – IX	96.4	96.2	3.6	10.5	9.6	10.2	68.9	87.6
X+	97.8	98.0	14.4	28.4	13.8	16.6	74.5	90.5
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001
All	77.1	84.4	2.8	9.3	6.0	8.3	57.5	82.1

Source: Education Watch Access to ICTs and Reading Materials Survey, 2016

Annex 5.8

Percentage of respondents having access to cell phone by use of it and age of respondents

Use of cell phone	Age-group				All	Significance
	11-29y	30-49y	50-69y	70y+		
Talk	100.0	100.0	100.0	100.0	100.0	ns
Short Message Services/chat	16.1	4.1	1.1	0.8	10.2	p<0.001
Internet browse	22.9	8.4	1.6	0.0	15.4	p<0.001
Game	50.2	9.7	1.5	0.0	30.6	p<0.001
Study purpose	8.3	1.9	0.5	1.7	5.2	p<0.001
Occupational writing	1.8	1.2	0.6	1.7	1.4	p<0.05
Listening music, watching movie etc.	73.2	42.1	16.2	4.2	55.4	p<0.001
Listening Islamic preach (*owaz*)	33.9	35.4	30.3	25.2	33.8	p<0.01
Listening radio programme	10.9	3.6	1.3	0.8	7.2	p<0.001
Photography, video	46.5	19.2	4.2	0.8	32.1	p<0.001
Money transfer, mobile banking	6.0	3.9	1.3	0.0	4.7	p<0.001

Multiple responses counted

Source: Education Watch Access to ICTs and Reading Materials Survey, 2016

Annex 5.9

Percentage of respondents having access to computer by use of it and age of respondents

Use of computer	Age-group				All	Significance
	11-29y	30-49y	50-69y	70y+		
Talk	2.0	1.1	0.0	0.0	1.8	ns
Short Message Services/chat	4.9	2.2	0.0	0.0	4.1	ns
Internet browse	44.9	51.1	43.8	0.0	46.2	ns
Game	32.0	23.1	12.5	0.0	29.7	p<0.05
Study purpose	19.1	17.6	18.8	0.0	18.6	ns
Occupational writing	46.7	70.3	56.2	0.0	51.6	p<0.001
Listening music, watching movie etc.	74.9	48.9	43.8	0.0	68.3	p<0.001
Listening Islamic preach (*owaz*)	3.7	1.1	12.5	0.0	3.5	ns
Listening radio programme	0.3	0.0	0.0	0.0	0.2	ns
Photography, video	11.7	6.6	12.5	0.0	10.5	ns
Money transfer, mobile banking	1.1	1.1	0.0	0.0	1.1	ns

Multiple responses counted

Source: Education Watch Access to ICTs and Reading Materials Survey, 2016

Annex 5.10

Percentage of respondents browsed internet during the past week of interview by strata and gender

Strata	Gender		Both	Significance
	Males	Females		
Rural Dhaka division	13.0 (578)	4.1 (689)	8.1 (1267)	p<0.001
Rural Chittagong division	11.9 (553)	5.0 (697)	8.1 (1250)	p<0.001
Rural Rajshahi division	14.1 (604)	2.3 (647)	8.0 (1251)	p<0.001
Rural Khulna division	11.6 (576)	1.6 (639)	6.3 (1215)	p<0.001
Rural Barisal division	13.2 (554)	3.6 (697)	7.8 (1351)	p<0.001
Rural Sylhet division	17.8 (628)	7.3 (727)	12.2 (1355)	p<0.001
Rural Rangpur division	8.6 (594)	1.1 (636)	4.7 (1230)	p<0.001
City corporations	31.9 (573)	13.5 (630)	22.3 (1203)	p<0.001
Municipalities	20.9 (575)	7.3 (683)	13.5 (1258)	p<0.001
Significance	p<0.001	p<0.001	p<0.001	
Rural Bangladesh	12.6 (4,087)	3.7 (4,732)	7.8 (8,819)	p<0.001
Urban Bangladesh	25.5 (1,148)	9.8 (1,313)	17.1 (2,461)	p<0.001
Significance	p<0.001	p<0.001	p<0.001	
All Bangladesh	15.1 (5,235)	4.8 (6,045)	9.6 (11,280)	p<0.001

Source: Education Watch Access to ICTs and Reading Materials Survey, 2016

Annex 5.11

Percentage of respondents having access to cell phone by mothers' education, gender and residence

Mothers education	Gender		Residence		All
	Males	Females	Rural	Urban	
Nil	78.7	65.8	70.7	78.1	71.9
Classes I – IV	61.3	87.6	88.1	94.9	89.4
Classes V – IX	94.1	93.1	93.2	94.3	93.5
Classes X+	98.1	93.0	94.7	96.7	95.4
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Annex 5.12

Percentage of respondents having access to computer by mothers' education, gender and residence

Mothers education	Gender		Residence		All
	Males	Females	Rural	Urban	
Nil	2.9	0.4	1.4	2.8	1.6
Classes I – IV	7.7	1.3	3.8	7.1	4.4
Classes V – IX	17.0	3.8	7.2	16.2	9.4
Classes X+	31.4	20.0	11.8	46.1	25.4
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Annex 5.13

Percentage of respondents having access to radio by mothers', education gender and residence

Mothers education	Gender		Residence		All
	Males	Females	Rural	Urban	
Nil	6.6	2.5	4.4	4.6	4.4
Classes I – IV	13.2	7.0	9.5	11.9	10.0
Classes V – IX	14.3	6.9	9.4	12.1	10.1
Classes X+	23.5	10.5	14.4	19.9	16.7
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Annex 5.14

Percentage of respondents having access to television by mothers' education, gender and residence

Mothers education	Gender		Residence		All
	Males	Females	Rural	Urban	
Nil	66.1	49.9	53.7	77.4	57.6
Classes I – IV	74.7	59.0	62.9	84.0	66.6
Classes V – IX	82.9	68.6	69.6	89.9	74.7
Classes X+	87.7	81.9	77.5	95.4	84.6
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Annex 5.15

Percentage of respondents having access to cell phone by fathers' education, gender and residence

Fathers education	Gender		Residence		All
	Males	Females	Rural	Urban	
Nil	77.3	64.2	69.3	76.4	70.4
Classes I – IV	91.5	87.9	89.3	91.4	89.6
Classes V – IX	91.8	87.7	88.7	92.4	89.6
Classes X+	96.0	88.4	90.4	94.0	91.6
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Annex 5.16

Percentage of respondents having access to computer by fathers' education, gender and residence

Fathers education	Gender		Residence		All
	Males	Females	Rural	Urban	
Nil	3.1	0.6	1.6	2.6	1.8
Classes I – IV	5.4	0.9	2.6	5.4	3.1
Classes V – IX	9.9	2.1	4.0	11.8	5.7
Classes X+	25.6	7.6	9.5	26.9	15.0
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Annex 5.17

Percentage of respondents having access to radio by fathers' education, gender and residence

Fathers education	Gender		Residence		All
	Males	Females	Rural	Urban	
Nil	6.1	3.0	4.2	5.8	4.5
Classes I – IV	12.5	5.8	8.9	10.1	9.1
Classes V – IX	12.1	5.5	8.3	9.0	8.5
Classes X+	18.6	6.0	10.1	13.5	11.2
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Annex 5.18

Percentage of respondents having access to television by fathers' education, gender and residence

Fathers education	Gender		Residence		All
	Males	Females	Rural	Urban	
Nil	65.5	49.5	53.3	78.1	57.1
Classes I – IV	72.4	59.6	62.1	84.1	65.9
Classes V – IX	78.5	61.5	64.4	86.6	69.2
Classes X+	83.9	71.0	70.2	89.1	76.3
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Annex 5.19

Percentage of respondents having access to cell phone by yearly food security status of household, gender and residence

Food security status	Gender		Residence		All
	Males	Females	Rural	Urban	
Always in deficit	72.4	60.9	64.4	80.6	66.1
Sometimes in deficit	80.5	71.0	74.4	82.3	75.5
Breakeven	81.2	73.5	76.1	81.0	77.1
Surplus	88.8	78.3	81.5	88.9	83.0
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Annex 5.20

Percentage of respondents having access to computer by yearly food security status of household, gender and residence

Food security status	Gender		Residence		All
	Males	Females	Rural	Urban	
Always in deficit	5.3	1.4	1.8	13.1	3.2
Sometimes in deficit	4.1	0.7	2.2	3.3	2.3
Breakeven	5.2	1.4	2.2	7.0	3.2
Surplus	10.2	2.7	4.1	13.5	6.0
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Annex 5.21

Percentage of respondents having access to radio by yearly food security status of household, gender and residence

Food security status	Gender		Residence		All
	Males	Females	Rural	Urban	
Always in deficit	6.6	3.6	4.6	8.1	5.0
Sometimes in deficit	8.8	3.5	5.5	9.0	5.9
Breakeven	8.7	4.4	6.4	6.5	6.4
Surplus	10.3	4.3	6.2	9.7	7.0
Significance	ns	ns	ns	ns	ns

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Annex 5.22

Percentage of respondents having access to television by yearly food security status of household, gender and residence

Food security status	Gender		Residence		All
	Males	Females	Rural	Urban	
Always in deficit	50.0	36.2	39.2	71.0	42.5
Sometimes in deficit	65.2	47.9	52.9	74.6	56.0
Breakeven	68.6	52.4	54.5	81.7	60.0
Surplus	77.9	63.8	65.6	86.2	70.1
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Annex 5.23

Percentage of respondents having access to newspapers by strata and gender

Strata	Gender		Both	Significance
	Males	Females		
Rural Dhaka	15.9 (578)	5.1 (689)	10.0 (1267)	p<0.001
Rural Chittagong	22.4 (553)	5.5 (697)	13.0 (1250)	p<0.001
Rural Rajshahi	26.0 (604)	6.5 (647)	15.9 (1251)	p<0.001
Rural Khulna	20.0 (576)	3.8 (639)	11.4 (1215)	p<0.001
Rural Barisal	21.1 (554)	6.6 (697)	13.0 (1351)	p<0.001
Rural Sylhet	29.3 (628)	9.2 (727)	18.5 (1355)	p<0.001
Rural Rangpur	14.5 (594)	3.1 (636)	8.6 (1230)	p<0.001
City corporations	40.7 (573)	20.3 (630)	30.0 (1203)	p<0.001
Municipalities	28.7 (575)	10.4 (683)	18.8 (1258)	p<0.001
Significance	p<0.001	p<0.001	p<0.001	

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Annex 5.24

Percentage of respondents having access to literary books by strata and gender

Strata	Gender		Both	Significance
	Males	Females		
Rural Dhaka	15.9 (578)	14.1 (689)	14.9 (1,267)	ns
Rural Chittagong	15.9 (553)	11.2 (697)	13.3 (1,250)	p<0.05
Rural Rajshahi	17.9 (604)	16.4 (647)	17.1 (1,251)	ns
Rural Khulna	14.6 (576)	12.2 (639)	13.3 (1,215)	ns
Rural Barisal	19.7 (554)	21.8 (697)	20.9 (1,351)	ns
Rural Sylhet	23.2 (628)	16.0 (727)	19.3 (1,355)	p<0.001
Rural Rangpur	14.3 (594)	16.5 (636)	15.4 (1,230)	ns
City corporations	22.2 (573)	19.4 (630)	20.7 (1,203)	ns
Municipalities	20.7 (575)	18.6 (683)	19.6 (1,258)	ns
Significance	p<0.001	p<0.001	p<0.001	

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Annex 5.25

Percentage of respondents having access to religious books by strata and gender

Strata	Gender		Both	Significance
	Males	Females		
Rural Dhaka	9.3 (578)	11.6 (689)	10.6 (1267)	ns
Rural Chittagong	15.0 (553)	14.5 (697)	14.7 (1250)	ns
Rural Rajshahi	18.0 (604)	20.6 (647)	19.3 (1251)	ns
Rural Khulna	10.6 (576)	13.5 (639)	12.1 (1215)	ns
Rural Barisal	15.3 (554)	20.2 (697)	18.1 (1351)	p<0.05
Rural Sylhet	13.7 (628)	12.8 (727)	13.2 (1355)	ns
Rural Rangpur	12.3 (594)	12.1 (636)	12.2 (1230)	ns
City corporations	12.2 (573)	19.2 (630)	15.9 (1203)	p<0.001
Municipalities	12.0 (575)	17.3 (683)	14.9 (1258)	p<0.01
Significance	p<0.001	p<0.001	p<0.001	

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Annex 5.26

Percentage of respondents having access to various reading materials by age-group

Age (in years)	Reading materials type		
	News-papers	Literary books	Religious books
11 – 14	12.1	35.2	9.8
15 – 19	26.5	36.8	18.7
20 – 24	18.0	19.8	20.4
25 – 29	15.7	16.0	17.4
30 – 34	14.7	10.3	15.3
35 – 39	14.2	8.4	13.9
40 – 44	10.9	6.2	9.9
45 – 49	11.8	6.6	10.5
50 – 54	6.8	3.1	9.6
55 – 59	10.6	3.3	11.3
60 – 64	7.3	4.0	11.1
65 – 69	9.8	3.6	10.8
70 – 74	7.2	2.4	13.9
75+	1.9	0.4	7.5
All	14.3	16.3	13.9

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Annex 5.27

Percentage of respondents having access to various reading materials by level of education and gender

Educational qualification	Various reading materials and gender					
	Newspapers		Literary books		Religious books	
	Males	Females	Males	Females	Males	Females
Nil	0.1	0.0	0.1	0.1	0.1	0.1
I – IV	5.8	1.2	5.6	6.5	5.0	4.5
V – VII	23.2	5.4	23.6	20.6	15.7	19.2
VIII – IX	42.8	10.1	29.7	26.3	24.7	29.3
X+	64.9	31.0	43.9	39.1	29.7	38.3
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001
All	22.8	7.1	17.5	15.3	12.7	15.0

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Annex 5.28

Percentage of respondents having access to various reading materials by level of education and residence

Educational qualification	Various reading materials and residence					
	Newspapers		Literary books		Religious books	
	Rural	Urban	Rural	Urban	Rural	Urban
Nil	0.0	0.2	0.0	0.2	0.0	0.2
I – IV	3.2	5.3	5.9	6.7	4.8	4.6
V – VII	11.6	19.7	21.6	23.3	17.4	19.1
VIII – IX	21.9	30.6	28.3	25.3	27.9	25.5
X+	44.8	59.7	40.8	43.6	35.9	28.3
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001
All	12.2	23.4	15.5	20.0	13.6	15.3

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Annex 5.29

Percentage distribution of the newspaper readers by sources of newspaper and level of education

Sources of newspapers	Level of education				All
	I-IV	V-VII	VIII-IX	X+	
Subscribed at home	7.8	15.6	14.6	24.8	19.8
Borrowing from friends, relatives or neighbours	12.7	18.9	17.4	17.2	17.4
At shop, bazar	73.1	57.3	54.9	44.1	50.8
In the library	6.4	8.9	6.3	8.2	7.8
At office	0.9	3.2	6.9	13.9	9.4
In internet	7.4	8.2	14.5	22.3	16.8
others	2.2	2.9	1.3	0.5	1.3

Multiple responses counted

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Annex 5.30

Percentage distribution of literary books readers by sources and level of education

Sources of literary books	Level of education				All
	I-IV	V-VII	VIII-IX	X+	
Buy myself	27.1	28.7	38.3	56.4	55.7
Household members	19.5	21.4	24.5	26.4	20.9
Friends, relatives, neighbours, colleagues	41.9	42.0	43.5	45.6	38.7
Library	34.1	33.8	31.8	21.2	22.9
Internet	1.5	0.8	3.9	11.3	7.2
others	1.0	2.3	1.7	0.9	1.5

Multiple responses counted

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Annex 5.31

Percentage of respondents having access to newspapers by mothers' education, gender and residence

Mothers education	Gender		Residence		All
	Males	Females	Rural	Urban	
Nil	16.6	2.9	8.6	13.1	9.3
Classes I – IV	28.6	9.5	17.2	26.2	18.7
Classes V – IX	39.4	16.3	22.1	38.5	26.2
Classes X+	51.9	33.5	30.6	59.6	42.3
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Annex 5.32

Percentage of respondents having access to literary books by mothers' education, gender and residence

Mothers education	Gender		Residence		All
	Males	Females	Rural	Urban	
Nil	10.1	8.7	9.3	9.3	9.3
Classes I – IV	23.4	22.2	21.6	28.2	22.8
Classes V – IX	35.9	29.7	31.9	33.7	32.3
Classes X+	61.0	45.9	52.9	53.6	53.1
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Annex 5.33

Percentage of respondents having access to religious books by mothers' education, gender and residence

Mothers education	Gender		Residence		All
	Males	Females	Rural	Urban	
Nil	10.8	10.0	10.4	10.6	10.4
Classes I – IV	15.3	21.5	17.9	21.1	18.5
Classes V – IX	18.4	26.0	22.6	23.2	22.8
Classes X+	12.4	27.5	20.9	19.2	20.4
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Annex 5.34

Percentage of respondents having access to newspapers by fathers' education, gender and residence

Fathers education	Gender		Residence		All
	Males	Females	Rural	Urban	
Nil	14.1	3.0	7.8	11.0	8.3
Classes I – IV	27.0	9.4	16.5	25.3	18.1
Classes V – IX	33.7	10.7	18.3	31.6	21.2
Classes X+	50.6	20.7	26.5	46.9	33.0
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Annex 5.35

Percentage of respondents having access to literary books by fathers' education, gender and residence

Fathers education	Gender		Residence		All
	Males	Females	Rural	Urban	
Nil	10.0	10.4	10.1	10.7	10.2
Classes I – IV	23.2	19.7	21.0	23.6	21.4
Classes V – IX	27.9	22.0	24.1	26.7	24.7
Classes X+	39.1	27.1	29.2	37.7	32.0
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Annex 5.36

Percentage of respondents having access to religious books by fathers' education, gender and residence

Fathers education	Gender		Residence		All
	Males	Females	Rural	Urban	
Nil	9.2	8.9	9.1	8.7	9.0
Classes I – IV	15.8	20.4	17.9	19.8	18.1
Classes V – IX	17.8	23.0	20.5	21.0	20.6
Classes X+	19.5	26.5	23.6	23.6	23.6
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Annex 5.37

Percentage of respondents having access to newspapers by yearly food security status of household, gender and residence

Food security status	Gender		Residence		All
	Males	Females	Rural	Urban	
Always in deficit	18.0	4.3	8.8	25.8	10.5
Sometimes in deficit	14.8	4.1	8.6	12.6	9.1
Breakeven	19.9	6.4	11.2	18.7	12.7
Surplus	31.0	9.7	16.0	32.1	19.3
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Annex 5.38

Percentage of respondents having access to literary books by yearly food security status of household, gender and residence

Food security status	Gender		Residence		All
	Males	Females	Rural	Urban	
Always in deficit	14.9	14.9	13.6	25.8	14.9
Sometimes in deficit	14.0	11.6	12.2	15.6	12.7
Breakeven	15.3	14.9	14.3	18.1	15.1
Surplus	22.4	17.9	19.0	23.2	19.9
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Annex 5.39

Percentage of respondents having access to religious books by yearly food security status of household, gender and residence

Food security status	Gender		Residence		All
	Males	Females	Rural	Urban	
Always in deficit	18.4	12.3	15.9	8.1	15.1
Sometimes in deficit	8.7	10.5	9.2	12.6	9.6
Breakeven	11.2	12.7	12.1	11.5	12.0
Surplus	16.0	19.8	17.5	20.5	18.1
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001

Source: Education Watch Access to ICT and Reading Materials Survey, 2016

Annex 5.40

Percentage of respondents requiring information for occupational development and personal/social wellbeing by occupation

Occupation	Various skills	
	Occupational development	Personal/social wellbeing
Agriculture	96.0	96.3
Day labour	90.8	97.1
Salaried job	94.7	99.6
Business	92.7	98.0
Driving	93.8	100.0
Rikshaw/van/boat pooler	85.8	100.0
Carpenter/mason/electrician	96.7	99.3
Fishing	81.6	83.9
Handicrafts	84.8	93.3
Household work	27.3	96.8
Student	91.7	97.9
Do nothing	0.0	93.0
Unemployed	0.0	98.9
Disabled	0.0	77.2
Retired/elder person	0.0	73.5
Others	89.2	96.1
All	100.0	100.0

Source: Education Watch Survey on Lifelong Learning Opportunities, 2016

Annex 5.41

Percentage of respondents requiring information for occupational development by strata and gender

Strata	Gender		Both	Significance
	Males	Females		
Rural Dhaka division	82.2 (578)	37.3 (689)	57.8 (1,267)	p<0.001
Rural Chittagong division	82.1 (553)	47.3 (697)	62.7 (1,250)	p<0.001
Rural Rajshahi division	91.9 (604)	48.4 (647)	69.4 (1,251)	p<0.001
Rural Khulna division	87.2 (576)	40.1 (639)	62.4 (1,215)	p<0.001
Rural Barisal division	73.5 (554)	38.6 (697)	54.0 (1,351)	p<0.001
Rural Sylhet division	88.9 (628)	42.5 (727)	64.0 (1,355)	p<0.001
Rural Rangpur division	92.6 (594)	33.8 (636)	62.2 (1,230)	p<0.001
City corporations	84.8 (573)	45.7 (630)	64.3 (1,203)	p<0.001
Municipalities	82.8 (575)	44.8 (683)	62.2 (1,258)	p<0.001
Significance	p<0.001	p<0.001	p<0.001	

Figures in the parentheses indicate number of respondents

Source: Education Watch Survey on Lifelong Learning Opportunities, 2016

Annex 5.42

Percentage of respondents requiring information for personal/social wellbeing by strata and gender

Strata	Gender		Both	Significance
	Males	Females		
Rural Dhaka division	94.6 (578)	94.0 (689)	94.3 (1,267)	ns
Rural Chittagong division	98.0 (553)	97.6 (697)	97.8 (1,250)	ns
Rural Rajshahi division	97.8 (604)	97.6 (647)	97.7 (1,251)	ns
Rural Khulna division	97.9 (576)	96.4 (639)	97.1 (1,215)	ns
Rural Barisal division	84.3 (554)	87.7 (697)	86.2 (1,351)	ns
Rural Sylhet division	98.6 (628)	92.4 (727)	95.3 (1,355)	p<0.001
Rural Rangpur division	99.7 (594)	98.7 (636)	99.2 (1,230)	ns
City corporations	98.3 (573)	96.5 (630)	97.3 (1,203)	ns
Municipalities	97.2 (575)	96.0 (683)	96.6 (1,258)	ns
Significance	p<0.001	p<0.001	p<0.001	

Figures in the parentheses indicate number of respondents

Source: Education Watch Survey on Lifelong Learning Opportunities, 2016

Annex 5.43

Percentage of respondents requiring information for occupation by type of information, gender and residence

Type of information/ knowledge	Gender		Residence		All
	Males	Females	Rural	Urban	
Agriculture	38.2	8.6	31.6	9.7	27.4
Health	6.3	11.4	8.2	8.0	8.1
Education	34.9	52.6	40.7	44.0	41.3
Technology	22.5	16.0	18.6	26.3	20.1
Official work	4.6	1.8	2.8	7.2	3.6
Cooking	0.5	12.7	4.8	5.7	4.9
Law, human rights	2.5	0.5	1.5	2.8	1.8
Trading	7.4	0.6	4.3	7.6	4.9
Handicrafts	0.2	7.0	2.6	3.0	2.7
Tailoring	0.4	8.7	2.9	5.3	3.4
Others	6.7	6.2	5.3	7.1	6.4

Multiple responses counted

Source: Education Watch Survey on Lifelong Learning Opportunities, 2016

Annex 5.44

Percentage of respondents requiring information for personal/social wellbeing by type of information, gender and residence

Type of information/ knowledge	Gender		Residence		All
	Males	Females	Rural	Urban	
Agriculture	8.5	2.7	6.1	2.3	5.4
Health	50.6	59.9	54.9	58.1	55.5
Education	39.3	43.2	41.5	40.7	41.4
Technology	19.0	10.5	13.7	17.6	14.5
Official work	1.7	0.9	1.3	1.3	1.3
Cooking	0.5	16.5	8.6	10.8	9.0
Law, human rights	18.2	8.0	12.6	13.4	12.8
Trading	0.3	0.2	0.3	0.2	0.2
Religious	2.5	3.3	2.9	3.2	3.0
Others	3.2	2.7	2.9	2.7	2.9

Multiple responses counted

Source: Education Watch Survey on Lifelong Learning Opportunities, 2016

Annex 5.45

Percentage of respondents requiring information for occupation by sources of information, gender and residence

Sources of information	Gender		Residence		All
	Males	Females	Rural	Urban	
Colleagues	26.5	15.6	21.7	26.0	22.5
Relatives, neighbours	59.9	68.7	64.6	56.9	63.1
Ustad/supervisor	23.1	14.9	19.5	22.8	20.1
Newspapers	4.3	2.2	3.3	4.5	3.6
Television	6.9	7.7	6.9	8.2	7.2
Internet	5.6	3.7	3.9	9.3	5.0
Books	7.2	12.2	9.1	8.7	9.0
Teachers	12.2	20.1	15.2	14.6	15.1
Others	6.2	5.8	4.1	6.5	6.0

Multiple responses counted

Source: Education Watch Survey on Lifelong Learning Opportunities, 2016

Annex 5.46

Percentage of respondents requiring information for personal/social wellbeing by sources of information, genderand residence

Sources of information/ knowledge	Gender		Residence		All
	Males	Females	Rural	Urban	
Colleagues	12.4	6.1	9.2	8.4	9.0
Relatives, neighbours	74.8	83.1	79.9	76.7	79.2
Ustad/supervisor	9.7	6.9	8.0	9.1	8.2
Newspapers	6.2	2.2	3.8	5.6	4.1
Television	11.7	13.1	11.6	16.2	12.5
Internet	6.5	2.5	3.6	7.5	4.4
Books	6.3	7.6	6.9	7.3	7.0
Teachers	5.2	6.4	5.9	5.6	5.8
Doctor, hospital, health worker	9.9	10.8	10.1	11.4	10.4
Others	3.5	1.6	2.4	2.6	2.5

Multiple responses counted

Source: Education Watch Survey on Lifelong Learning Opportunities, 2016

Annex 5.47

Percentage of respondents requiring information for occupational development and personal/social wellbeing by frequency of timely getting information

Frequency	Gender		Residence		All
	Males	Females	Rural	Urban	
Occupational development					
Always	70.4	69.3	68.4	76.6	70.0
Sometimes	24.5	25.3	25.7	20.9	24.8
Not really	5.1	5.4	5.9	2.5	5.2
Total	100.0	100.0	100.0	100.0	100.0
Personal/social wellbeing					
Always	61.4	64.0	61.1	70.5	62.8
Sometimes	31.8	28.7	31.1	25.8	30.1
Not really	6.8	7.3	7.8	3.7	7.1
Total	100.0	100.0	100.0	100.0	100.0

Source: Education Watch Survey on Lifelong Learning Opportunities, 2016

Annex 5.48

Percentage of respondents requiring information for occupational development and personal/social wellbeing by strata and frequency of timely getting information

Strata	Occupational development			Personal/social wellbeing		
	Always	Sometimes	Not really	Always	Sometimes	Not really
Rural Dhaka division	61.5	29.6	8.9	54.6	34.4	11.0
Rural Chittagong division	70.4	23.3	6.2	62.0	27.7	10.2
Rural Rajshahi division	74.2	22.2	3.6	65.5	28.6	5.9
Rural Khulna division	55.9	36.8	7.3	44.7	46.7	8.6
Rural Barisal division	67.6	27.7	4.7	70.9	24.8	4.4
Rural Sylhet division	77.5	20.0	2.5	75.8	21.1	3.2
Rural Rangpur division	80.4	17.0	2.6	70.9	26.6	2.5
City corporations	84.5	14.0	1.6	80.1	18.3	1.6
Municipalities	70.8	26.0	3.2	63.6	31.2	5.2

Source: Education Watch Survey on Lifelong Learning Opportunities, 2016

Annex 5.49

Percentage of respondents requiring information/knowledge for occupational development by occupationand frequency of timely getting information

Occupation	Frequency		
	Always	Sometimes	Not really
Agriculture	63.6	28.1	8.3
Day labour	66.9	26.2	6.9
Salaried job	74.9	22.5	2.6
Business	73.9	23.2	2.8
Driving	79.2	18.3	2.5
Rikshaw/van/boat pooler	72.5	18.3	9.2
Carpenter/mason/electrician	70.2	25.3	4.5
Fishing	67.5	15.0	17.5
Handicrafts	61.5	12.8	25.6
Household work	69.7	23.9	6.4
Student	70.7	25.7	3.7
Do nothing	-	-	-
Unemployed	-	-	-
Disabled	-	-	-
Retired/elder person	-	-	-
Others	78.3	16.5	5.2
All	70.0	24.8	5.2

Source: Education Watch Survey on Lifelong Learning Opportunities, 2016

Annex 5.50

Percentage of respondents requiring information for personal/social wellbeing by occupation and frequency of timely getting information

Occupation	Frequency		
	Always	Sometimes	Not really
Agriculture	57.7	33.2	9.1
Day labour	55.6	34.3	10.0
Salaried job	67.1	30.0	2.9
Business	62.8	32.0	5.2
Driving	61.2	32.6	6.2
Rikshaw/van/boat pooler	55.9	34.6	9.4
Carpenter/mason/electrician	55.9	37.5	6.6
Fishing	59.6	23.4	17.0
Handicrafts	54.8	26.2	19.0
Household work	64.0	28.8	7.2
Student	64.8	29.5	5.7
Do nothing	69.2	24.5	6.3
Unemployed	56.0	33.0	11.0
Disabled	63.8	24.8	11.4
Retired/elder person	65.8	26.3	7.9
Others	68.8	24.8	6.4
All	62.8	30.1	7.1

Source: Education Watch Survey on Lifelong Learning Opportunities, 2016

Annex 5.51

Percentage of respondents not having necessary information for occupational development on time by constraints, gender and residence

Constraints	Gender		Residence		All
	Males	Females	Rural	Urban	
Scarcity of necessary books	7.1	10.3	8.1	9.7	8.3
High cost of books	3.6	7.8	4.7	8.2	5.2
Scarcity of specialized persons	64.3	61.0	62.6	65.7	63.1
Scarcity of newspaper, periodicals	3.7	2.1	3.0	3.6	3.1
Lack of internet facility	4.3	4.4	4.5	3.4	4.3
Costly internet facility	2.7	2.1	2.7	1.1	2.5
No training centre nearby	19.2	19.7	18.4	25.2	19.4
Electricity facility is not available	4.0	3.9	4.2	2.6	3.9
Poor road communication	14.1	13.4	15.6	4.1	13.9
Inadequacy of time	18.8	16.1	17.5	19.1	17.8

Source: Education Watch Survey on Lifelong Learning Opportunities, 2016

Annex 5.52

Percentage of respondents not having necessary information for personal/social wellbeing on time by constraints, gender and residence

Constraints	Gender		Residence		All
	Males	Females	Rural	Urban	
Scarcity of necessary books	3.3	4.2	3.9	3.2	3.8
High cost of books	2.4	3.7	3.1	2.4	3.0
Scarcity of specialized persons	59.0	62.8	59.7	68.0	61.0
Scarcity of newspaper, periodicals	3.6	2.1	2.7	3.6	2.8
Lack of internet facility	5.1	3.3	4.3	3.6	4.2
Costly internet facility	1.7	1.4	1.4	2.2	1.6
No training centre nearby	14.3	15.3	14.4	17.1	14.8
Electricity facility is not available	7.1	5.3	6.6	3.9	6.2
Poor road communication	15.9	16.2	17.8	6.3	16.0
Inadequacy of time	25.0	21.8	22.7	26.8	23.3

Source: Education Watch Survey on Lifelong Learning Opportunities, 2016

Annex 5.53

Percentage of respondents not having necessary information for occupational development on time by suggested solutions, gender and residence

Suggested solutions	Gender		Residence		All
	Males	Females	Rural	Urban	
Telecast information using TV	21.5	22.5	21.0	26.9	21.9
Improvement of road communication	30.2	24.4	30.3	15.3	28.1
Low cost internet facility	8.1	9.1	7.9	11.9	8.5
Training centre at upazila level	18.9	15.8	16.9	23.1	17.8
Equip UpazilaParishad with info.	8.2	4.1	6.0	10.5	6.7
Improved service at union info. centre	15.8	10.5	15.2	5.9	13.8
Make books available in market	5.1	8.5	5.9	9.1	6.3
Improved awareness of people	33.8	41.2	35.8	40.6	36.5

Source: Education Watch Survey on Lifelong Learning Opportunities, 2016

Annex 5.54

Percentage of respondents not having necessary information for personal/social wellbeing on time by suggested solutions, gender and residence

Suggested solutions	Gender		Residence		All
	Males	Females	Rural	Urban	
Telecast information using TV	15.6	20.1	17.5	20.3	17.9
Improvement of road communication	22.9	21.2	23.5	13.7	22.0
Low cost internet facility	6.7	4.6	5.4	6.6	5.6
Training centre at upazila level	8.6	8.5	8.0	11.5	8.6
Equip UpazilaParishad with info.	6.0	5.0	4.7	9.9	5.5
Improved service at union info. centre	17.2	12.9	16.1	8.7	15.0
Make books available in market	3.8	5.7	4.7	5.5	4.8
Improved awareness of people	59.9	61.9	59.5	69.0	61.0

Source: Education Watch Survey on Lifelong Learning Opportunities, 2016

Percentage of respondents having access to various ICT and reading materials by occupation

Occupation	Various ICT and reading materials							
	Cell phone	Compu-ter	Radio	Tele-vision	Internet	News-paper	Literary books	Religious books
Agriculture	74.8	0.5	4.9	60.2	2.8	12.5	6.4	13.1
Day labour	71.2	0.3	3.8	56.2	2.3	5.2	2.9	4.7
Salaried job	96.1	21.3	10.4	81.4	30.9	50.9	26.8	24.9
Business	91.7	5.4	5.4	75.0	13.6	26.8	9.0	13.7
Household work	73.4	0.3	2.7	50.9	2.9	3.7	8.0	14.6
Student	91.9	10.2	14.6	77.4	21.7	25.4	44.9	16.5
None	43.0	2.2	2.4	47.5	5.1	8.4	5.9	10.2
Others	87.9	2.4	8.5	71.3	9.3	15.9	8.3	8.7
Significance	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001	p<0.001
All	78.5	4.1	6.5	62.1	9.6	14.3	16.4	13.9

Percentage distribution of respondents by occupation and literacy levels

Occupation	Levels of literacy				Literacy rate
	Non-literate	Semi-literate	Literate-initial	Literate-advanced	
Agriculture	52.2	9.6	18.4	19.7	38.2
Day labour	69.0	11.4	12.1	7.6	19.7
Salaried job	15.3	6.1	22.3	56.2	78.5
Business	39.3	7.0	23.2	30.5	53.7
Household work	47.1	12.3	26.7	14.0	40.7
Student	3.6	6.9	35.8	53.7	89.5
None	65.8	8.2	13.4	12.6	26.0
Others	48.8	11.7	22.9	16.6	39.6
All	39.0	9.8	25.3	26.0	51.3

This 15th *Education Watch* report dealt with three critical but interlinked components of the fourth Sustainable Development Goal (SDG 4). The components include Literacy, Skills Acquisition, and Lifelong Learning. Nationally representative sample surveys with provision for geographic and gender-based estimates were used. Information were generated by interviewing the population aged 11 years and over and administering a literacy assessment test on them.

Overall, the literacy level of Bangladeshis increased since the last survey in 2002, but at a slow pace. Impact of the Education for All (EFA) movement on literacy attainment was strong among those who attended primary education during 1990-2015. Attendance in school seems to be the principal source of attaining literacy. Formal vocational education is in general not popular and thus participation in skills training courses is very low. Access to ICTs and reading materials signals a state of hope. There is a clear demand for information on professional development and healthy personal and social life. Unfortunately, a variety of inequality exists across the three components addressed.

There is a danger that each of these components are conceived and addressed as discrete endeavours, thus the advantages of complementarity and drawing strength from each other is lost. The government and other stakeholders in Bangladesh should take the key messages seriously and thereof the recommendations.

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