

Review of the Education System of Bangladesh for Preparing Future Workforces

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Abstract

The purpose of this paper is to explore the status of the education system of Bangladesh and compare the key issues prevailing in the system with the issues prevailing in the education systems of developed countries. The author takes the views of four prominent educators from developed countries to understand the strength and limitations of education systems in light of preparing future workforces for a globalized world and relate those viewpoints with the current progress of the education system of Bangladesh. A thematic analysis was conducted after reviewing several documents, including acts, policies, assessment reports, and related research publications, in order to comprehend the situational setting of the Bangladeshi educational system. Strength and weakness were explored using part of the SWOT analysis. The finding shows some similarities in strength in the education system of Bangladesh and developed countries, especially in implementing Information and Communication Technology (ICT) in education. Similarly, Bangladesh and other developed countries face similar limitations of the education system regarding the assessment system and students' intention to memorize rather than understand. This paper aims to assist the policymaker in finding ways to improve the Bangladeshi education system for developing future workforces and turn the present education system into a high-standard education system.

Keywords: Education System, Strength of Education System, Limitation of Education System, ICT in Education, Education and Technologies.

Introduction

Policymakers should take into account the educational system's strengths and limitations at the moment and foresee the crucial concerns that will need to be considered as the workforce's requirements change in the future. The true benefits of an education system may not always be immediately apparent. However, if future predictions are inaccurate, the system's full potential may never be fully realized. Because of globalization, the world is connected more than ever. The education systems of other countries should review to understand how they plan to alleviate future challenges by improving the current educational system. Therefore, if we cannot keep up with the pace of change in the developed world's educational system, we will continue to fall behind, and our goal of moving from a country with upper-middle-income to a

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developed country would remain just that—a dream. Moreover, Bangladesh plans to be a high-income country by 2041 (Bangladesh Planning Commission, 2020). Education would be the key factor in executing this plan. Along with income, quality of life is also essential for human beings. Education is vital in improving the Human Development Index (HDI) ranking, which is 129 for Bangladesh among 191 countries (UNDP, 2022), and that informs the unstable or shaky status of Bangladesh's education system and calls for strengthening. The educational system can aid students in getting ready for the workforce of the future. Contrarily, the limitations of educational systems can undermine national development objectives by leaving no workforce prepared to deal with rapid changes in the world.

This paper summarizes the opinion published in a leading-edge interview, “The future of education: a four-way conversation”, by four prominent educators from three developed countries, namely the UK, USA, and Australia, and compares the issues highlighted in that interview with the current issues that exist in the educational system of Bangladesh. They mainly discuss their viewpoints about the strengths of present educational conditions prevailing in their countries and the weaknesses of existing education systems concerning future workforces. This research paper concentrates on two things. One, the strengths and limitations of developed countries' primary and secondary education systems, discussed in the interview (The Future of Education, 2020), and two, compare those issues with the strengths and limitations of Bangladesh's education system. This comparison would help to understand whether the education system of Bangladesh is moving forward like developed countries' education systems. This sets the research questions of the studies in the following manner:

Research question 01: What are the strengths of the education system of Bangladesh in comparison to developed countries in preparing future workforces?

Research question 02: What are the limitations of the education system of Bangladesh in comparison to developed countries in preparing future workforces?

SWOT analysis

Strength, Opportunity, Weakness, and Threat (SWOT) analysis mainly used for the business organization to analyze internal and external factors to formulate strategies. It is widely accepted that SWOT emerged by Stanford University Professor Albert Humphrey, who led a study based on Fortune 500 corporations in the 1960s and 1970s. However, there are no scholarly sources to back up this assertion (King, 2004). The “SWOT” framework has been used and documented in the literature for fifty years, regardless of who deserves the precise historical credit for its invention (Helms & Nixon, 2010). However,

many academics applied it in cases involving educational contexts, such as ODL in higher education, the generational gap in teachers, and comparative analyses of the educational system (Nasreen & Afzal, 2020; Polat et al., 2019; Wang et al., 2005). SWOT analysis suggests a framework that aids academics and decision-makers in determining and prioritizing the key objectives and further formulating the approaches to attain those (Kumar et al., 2018).

This study intends to determine the benefits and drawbacks of education systems in Bangladesh and other developed nations in terms of educating students to be future workforces, which could lighten the area for improvement and required policy support. For this reason, the 'strength' and 'weakness' parts of the SWOT analysis were used to compare and contrast the outcomes of the two sides' educational systems and assist policymakers in formulating educational system strategies while considering local, national, and international issues.

Methodology

Two themes were identified in the research questions, and a literature review was undertaken. The primary goal of this study is to examine the strengths and weaknesses of Bangladesh's primary and secondary educational systems and compare them to those of developed nations. To that end, the literature review research method was employed as the study's methodology. An integrated literature review approach was used to synthesize and compare the evidence in the body of knowledge of study matters (Torraco, 2005). Policy documents, education-related articles and, educators' views were analyzed for this study. All text documents were studied per the research topics and excluded irrelevant papers. As the government of a country developed the education system, more emphasis was placed on government policies-related documents to capture the scenario of the progress of Bangladesh's primary and secondary education systems.

In an interview, the four professors provide some insights about the existing strength and limitations of education systems for students' success in working from year 2040 to 2070 (The Future of Education, 2020). The summary of the viewpoints of four professors about the overall strength and limitations of education in three countries, namely the USA, the UK and Australia, was used to understand the education system of developed countries. Thematic analysis was done to understand the pattern of their viewpoint. A sense of collective or shared meaning and experience can be identified by focusing on the meaning of the data set using thematic analysis (Braun & Clarke, 2012). The steps for the thematic analysis developed by Braun and Clarke (2006) were followed to produce the main issues that predominate in the education system of the developed country. Thematic analysis is appropriate for the analysis as it is an accessible, flexible, and popular method for qualitative data analysis (Braun &

Clarke, 2012). In this paper, those issues were selected to discuss and compare those with the issues in the education systems of Bangladesh, as those are fundamental for current and future educational development. SWOT analysis framework was used to analyze the main issues of the education system. However, to accomplish the study's goal, only the strengths and weaknesses parts of the framework were employed for analysis. Due to social, economic and political factors, the developed world's educational standards do not correspond to those of Bangladesh; however, this comparison was made to illuminate the path toward transforming Bangladesh's educational system into one that meets global standards.

Strength of the current education system

In the interview, four interviewees mentioned different strengths of their respective countries (The Future of Education, 2020). The themes of those strengths were viewed as strengths of the educational system in developed countries. In the UK, the strength comes from the educational approach for which students can cope with changes and understand other people. Students can work in the interdisciplinary collaborative approach. The education system of the USA has access to quality education and technology-integrated educational resources that were considered the main strengths of education. In the USA, digital literacy, for example, computer programming, was assumed to be the fundamental strength of educational systems. However, in Australia, the educator's dedication to the school, the curiosity of the students, and heterogeneity among the students in the classroom were the critical strengths of education. These strengths of the educational system could help the students to be ready for the future workplace for lifelong livelihood. In addition, this is required not only for developed countries but also for developing countries.

In the analysis of the education systems of Bangladesh, the following strengths were found for comparison with the developed countries.

Policy support for ICT integration

The National Education Policy 2010 has focused on similar strengths for the education system of Bangladesh. The education policy aims are to foster creative and thinking faculties among the learners; create unhindered and equal opportunities for education; remove discrimination and gender disparity; use ICT at all levels of the educational process; and cultivate ICT education among the students (GoB, 2010). The ICT policy 2018 has also been developed to foster educational improvements using ICT. The policy formulates strategic plans like the inclusion of ICT curriculum in all levels of education; use of ICT in the teaching-learning process; job placements for ICT graduates; research on ICT; delivery of products & services through ICT; patents & copyright regarding ICT innovations; use of ICT in special education and ensuring the effective use of ICT in educational administration

and management (GoB, 2018). The application of ICT in school-level education can ensure the accessibility of education for all and enhance digital literacy for quality education. The support for quality education at the policy level is significant, but practical implementation in the education system requires further attention.

ICT integrated education

The ICT subjects were included in both pre-primary and primary level curricula and textbooks, allowing the students to understand ICT at the start of their educational level (MoE, 2019). To raise the technical proficiency of primary teachers, training materials have been upgraded with fundamental ICT elements. Ultra-modern ICT labs in training centers for primary teachers would help the teacher to know the latest technological advancement in education. Therefore, students currently enrolled in the pre-primary and primary levels would become experts in the regular use of technologies from the beginning of their academic journey. As an outcome, it is predicted that after completing their education, they could contribute their ICT skills in their job place.

The progress in the secondary level regarding ICT also helps the students prepare for the future workplace. Modern ICT-related updates are included in the secondary-level curriculum and textbook to enhance the student's skills. The shortage of ICT teachers dealt with appointing ICT background teachers. Teachers of other subjects took the training on ICT in the teacher training center for better integration of ICT in the classroom. Around 0.2 million teachers have already received training on ICT to develop the teaching-learning material for the classroom (MoE, 2019).

Furthermore, the government provided the sharing facilities through a web portal established by the education ministry, which translates into helping the teachers to become skilled in their subjects and improve the accessibility of quality education. These also open the door for working on developing education materials altogether and help teachers each other to transform traditional teaching into digitized teaching activities. Per se, this would benefit the students and prepare them for the future. Therefore, implementing ICT at the school level strengthens the technical knowledge advancement of students and so the system as well.

Planning to use Artificial Intelligence (AI)

Bangladesh participated as a strategic partner in UNESCO MGIEP's activities, which is a learning platform using AI (UNESCO MGIEP, 2019). It helps learners learn using text, audio, video, gaming, virtual reality (VR), and augmented reality (AR). This platform was mainly developed for the youths to develop intellectual and emotional intelligence (UNESCO MGIEP, 2019).

Though the ICT policy of Bangladesh did not explicitly mention the use of AI in the education system, it mentioned the use of the latest technologies for education (GoB, 2018). The use of the latest technologies mentioned in the policy encompasses AI in education. The fourth industrial revolution has already started, so the education system must change to prepare the students. Using the latest technologies at the school level can help the students be innovative and cope with the changing demand in the job sectors. However, students, policymakers, and future business leaders must be aware and educated about the cost and benefits of hi-tech AI infrastructures in the education system (Goralskia & Tanb, 2020). Therefore, this participation strengthens the educational system for preparing the students to cope with the fourth industrial revolution.

Digital literacy of teachers

In order to digitize the education system, teachers must be at the forefront of the plan and responsible for implementing it in the classroom. Therefore, a teacher's digital literacy is the key to the success of a digitized education system. In Bangladesh, all teachers are skilled in operating at least anyone device of ICTs, including an ordinary mobile phone, smartphone, tablet computer, desktop computer, and laptop computer (CAMPE, 2019). The proper training of the teachers to use these devices for educational purposes could change the scenario of the education sector radically. According to BANBEIS (2018), 81% of secondary-level educational institutes had internet facilities, but only 24% of schools used the internet for pedagogical purposes. These uses have to increase to digitalize the education system and increase the professional skill of the teachers.

Free access to quality education

Using the internet for networking and sharing among the teachers could help develop the teaching materials for the classroom. As mentioned earlier, the Government of Bangladesh has already set up Sikkhok Bataon (www.teachers.gov.bd), a website that created a network of teachers to share their e-contents for the classroom. Teachers can freely use these contents, ensuring the same and equal education for all. The difference in the quality of education in rural and urban areas could be mitigated with this type of networking facilities and proper use of that. Therefore, the ground for strengthening future education already exists in the current system.

Dedicated Teachers

In a study conducted by CAMPE (2015), teachers faced many obstacles in their career path. However, most teachers were delighted with their profession despite the many limitations of this career path. The study also revealed two-thirds of the teachers wanted to become teachers because teaching is a noble and honorable profession. They want to stay in this profession and demand

quality training to become skilled and successful teachers. Despite the various challenges they confronted in their jobs, teachers desired to dedicate their lives to the welfare of the pupils. They felt satisfied when their students participated in class and when they could instruct their students well. It indicates teachers' dedication which is the greatest strength of the current education system of Bangladesh.

The following table 01 summarizes findings about the strength of the education system in developed countries and Bangladesh in a comparative format.

Table 01: Summary of findings about strength of education system	
Strength identified in developed countries	Strength identified in Bangladesh
UK • Students are flexible to cope with change; • Ability to work with others. USA • Access to free and compulsory basic education. • Accessible quality education. • Basic resources to learn technology. • Digital literacy, including computer programming. Australia • Passionate educators to care. • Students passionate about learning. • School without social-class division.	• Great policy support for the effective education system. • ICT integrated education. • Planning to use Artificial Intelligence (AI). • Digital literacy of teachers. • Free access to quality Education. • Dedicated teacher.
Source: Findings of the study	

Limitation (weakness) of the current education system

Four interviewees discussed various country-specific weaknesses in the education system during the interview (The Future of Education, 2020). In the UK, the educational system requires students to remember information without verifying it, studying a single discipline, and the purpose of studying is to pass. The educational system of the USA had limited access to technologies for *all*. Another area for improvement in the current education system of the USA was that students were grouped according to age, not on their interests, abilities, or maturity. The purpose of examination has become the instrument for competition and dominance. One interviewee discussed the digital divide between students and teachers in the USA. Teachers get unequal facilities for developing professional skills required to incorporate technologies in classroom instruction. The Australian education system was criticized, claiming it needed to be updated because it could pull students

behind. The current system would not solve the local and global problems surrounding students.

The following weaknesses in Bangladesh's educational systems were identified for comparison with developed countries.

Education as a memorization exercise

In 2016, DSHE conducted a study aimed at evaluating cognitive abilities in Bangla, English language, and mathematics. This government-authority study was made to assist the policymaker in comprehending the current state of the secondary level. According to the survey, grade 6 pupils needed assistance with English word definition and using the correct tense while creating sentences in English. Unexpectedly, students in this grade could not determine the meaning of a typical Bangla expression put in a slightly peculiar situation, and they are unaware of the many Bangla words' meanings despite Bangla being their mother tongue. The students strain to apply the concept in real-world situations when it came to math and geometry. Students in grade 8 struggle to comprehend Bangla and English as well as to use grammatical principles appropriately in context. In the same grade, students could not understand the reasoning in mathematical solutions and interpret them in *real-world situations*. They also have weaknesses in the geometrical understanding of concepts and linking them to applications in *real-world situations*. Therefore it is clear that the students take education as memorization, not understanding. Because of this, while having good memorization skills, they struggled to apply what they learned in the real world.

Outdated assessment system

Al Amin & Greenwood (2018) studied 216 Bangladeshi teachers' attitudes and perceptions of the different aspects of teaching and examination for English subjects. They found that teachers felt pressure to teach students as it was done only for the examination. Some teachers recommended changing the examination system if they want to achieve the skill documented in the secondary national English curriculum. However, these researchers also found the opposite views from teachers about the learning outcomes and examination systems. In another study, Sultana (2019) discovered that although Bangladesh's English curriculum has been built on communicative language for the past two decades, teachers' effectiveness in assessment systems was hampered by their insufficient academic and professional testing backgrounds. She also added that the education system of Bangladesh is mainly based on examinations, where teachers prepare their students for different types of tests during their academic years. It is disheartening that any student can pass the exams without comprehending the terminology or the structure to use in practical situations. Moreover, assessment should be based on more than just the test.

Lack of social recognition for teachers

The control of the choice of work can influence the motivation for work. According to CAMPE (2015), teaching became the last option as a profession for the graduates of Bangladesh. Few parents want their children to become schoolteachers. Since there is no career ladder for schoolteachers, there is no incentive to become a teacher. Additionally, practically all teachers deal with workload issues and other classroom-related challenges. Non-value-adding activities make teachers' days exhausting and tiresome. Their relatively low salary encourages them to seek alternative non-teaching activities for extra money. Since they occasionally require the students to pay for private tuition, these substantially undermine the professional function and morale of the professors. They could not become the ideal figure for their students, which may have negative influences on the career of the students.

Less qualified teachers

In a study results showed that a teacher with a Master degree positively impacts student performance in Bangladesh (MPME, 2018). This study suggested, only 37 percent of Math and Bangla teachers hold a Master degree in primary education in Bangladesh. This lacking can seriously undermine the performance of the students. The minimum standard for recruitment at the school level should be reviewed for recruiting qualified teachers. In that case, the pay structure must be flexible for adjusting the payments of qualified teachers, which is absent in the current education system. Qualified teachers at the school level can improve the overall education quality, ultimately leading to a skilled and professional career for our students.

Digital gender inequality

Bangladesh has a significant level of digital inequality, with girls having access to half as many devices in class as boys (UNESCO, 2019). According to Sustainable Development Goals (SDG) 4.1, by 2030, equitable primary and secondary education for girls and boys must be ensured for relevant and effective learning outcomes (United Nations, 2015). If girls are not getting internet access properly, it is impossible to achieve the goal of digitized education systems, as the internet is the key to digitalization. However, in Bangladesh, no significant difference was found between students from urban and rural schools in the domain of *Digital Literacy, Digital Participation and Agency, Digital Emotional Intelligence, and Digital Creativity and Innovation* (UNESCO, 2019). It indicates the technological proficiency of rural students appears to be on par with their urban counterparts. If the system can develop to support them, many human resources can be produced from both parts of the country.

Limited computer skills of teachers

If teachers know how to operate computers well, they can facilitate technology mediated teaching-learning which leads to effective students' learning. In Bangladesh, half of the teachers knew how to operate a desktop computer, and 36.7 percent of teachers could operate a laptop computer (CAMPE, 2019). The teacher plays an influential role in teaching computer literacy in Bangladesh as 46.3 percent of students reported that their teacher taught it to them, and 70 percent of students are encouraged to use the internet for learning from their teacher (UNESCO, 2019). However, the shortage of ICT resources and the scope of training for the teachers can impair teachers' digital learning. The policymaker should consider it and plan appropriately for the budget and its proper utilization.

Different education streams

Diversity among the students in the classroom was identified as the strength of the education system of developed countries (The Future of Education, 2020). However, in Bangladesh, diversity could not be established in the classrooms; instead, diversity is limited to the education stream (NHRC, 2014). Education Policy 2010 also mentioned it as a problem of our education systems and emphasized to change into one stream (GoB, 2010). In response to the practical realities of the social conditions, the education system of Bangladeshis is divided into four major streams: the national curriculum (in Bengali and English), the English Medium, the Vocational studies, and the Madrasa education (NHRC, 2014). Despite debate about diverse streams in education, it ensures the right to accessibility of education for all. However, the variation in the curriculum is the main weakness of these streams, which needs to be addressed for further education or in the job sectors. The infrastructural facilities among these streams are widely varied, which creates the variation of educational quality in society; for example, if anyone sees the teacher-student ratio, the difference would be apparent to all (see Table: 02).

Table 02: Teacher-Student ratios as of 2018

Secondary Level Education	Teacher-Student Ratio
National curriculum	1:47
English medium	1:8
Vocational studies	1:21
Madrasa (Dakhil)	1:21

Source: (BANBEIS, 2018)

The perceptions of society also create barriers to considering these streams as the same standard. This division in the system creates opportunities for privileged groups and diminishes the level playing field in the job markets. The positive side is that policymakers are now considering the single stream for secondary-level education. According to the 8th five years of planning, the

government introduced the single-track curriculum up to grade X (Bangladesh Planning Commission, 2020). Therefore, if the plans were implemented, the limitations would be eliminated. This initiative would create equal capability for all the students and help to reduce social deprivations. The findings about the weaknesses of the educational systems in developed countries and Bangladesh are comparatively illustrated in the following table 03.

Table 03: Summary of findings about limitations of education system		
	Limitations identified in developed countries	Limitations identified in Bangladesh
	UK • Students are less interested in epistemology.	• Education as a memorization exercise. • Outdated assessment system. • Lack of social recognition for teachers. • Less qualified teachers. • Digital gender inequality. • Limited computer skills of teachers. • Different education streams.
	USA • Digital divide and access to technology. • The System does not consider the students' interests, abilities, or maturity. • Emphasis on tests and examinations. • Inequity in digital facilities for students as well as teachers.	
	Australia • Outdated lecture delivery model in the classroom and assessment based on it. • Inequalities in schools, pedagogy, and curriculum.	
Source: Findings of the study		

Discussion

The present study aims to analyze the present condition of the education system of Bangladesh and compare it with the developed country. The study revealed that the Bangladeshi education system has support from the policy level because of established national educational policy and various acts and policies regarding ICT in education. It is necessary to develop short-term and long-term strategies to improve the quality of the educational systems, which will increase the capacity of future workforces, using that policy assistance. The education approach should improve the students' adaptability to the changing environment. Moreover, the application and integration of ICT in

education are at the primary level, which must be elevated to an advanced level both for the student and teachers to ensure free and quality education.

Bangladesh's educational system shares the same issue with developed countries as it has become a memorization-based system. The teachers, curriculum developers, and policymakers must rethink how education would be delivered for the students. Only memorizing is a partial part of education, which cannot achieve the whole objective of education. The solution to these problems could be redesigning the textbooks with real-world scenarios, practical examples for practice, and the use of teaching aid in the classroom to think of alternative ways to solve the problems. An updated assessment system must be designed so that only memorization will not be effective for the students, which may motivate and force them to understand what they are taught.

Though teachers are highly motivated in Bangladesh, social recognition must be ensured by improving their salary structure with other benefits and adding more steps to their career ladder. Improved financial and other benefits ensure attracting and retaining quality teachers, leading to a quality education system. Because of the digitization of the education system, teachers must know how to incorporate ICT in teaching and day-to-day administrative activities. The acceptance level of ICT in the teaching-learning process is high in Bangladesh (Islam, 2022). Virtual training can solve the shortage of ICT training facilities for teachers.

Diversity in the classroom is considered strength of the education system; however, the single-stream education system is trying to implement in Bangladesh, considering free and equal educational access for all. The social-economic structure of different social groups should be considered before the conversion of the harmonization into one system. In Bangladesh, the cultural initiative may face obstacles due to the coexistence and interaction of students from varying economic backgrounds. This is where the challenge of heterogeneity in the classroom arises. If we successfully infuse this and create the environments, our students could become more adaptive in their career paths. The teamwork capacity would build from childhood, and teamwork is thought to improve employee welfare and work motivation (Gallie et al., 2012).

It is the responsibility of the policy maker who are making strategies for the betterment of the education systems of Bangladesh. The future workforce can be prepared by properly utilizing the strengths already present in the current educational system and removing the flaws. The appropriate authorities can create a high-standard educational system by considering the strength and limitations of the current educational systems of Bangladesh highlighted in this study.

Conclusion

This study identifies and summarizes education systems' strengths and limitations to address those collectively. For globalization, every country needs to work together to act in developing the education system. Bangladesh is also prone to the same limitation of education systems that the developed countries face. Policymakers need to understand the system's strength to get the full benefit and utilize it to prepare the future workforce. Limitations should address in light of the social context of Bangladesh. Some limitations are unique to Bangladesh, and some are common for both developed countries and Bangladesh. Policymakers from different countries can collaborate and share ideas to overcome common limitations.

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