

e-Education in Developing Countries*

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Bangladesh is one of very few countries that is very close to reaching the United Nations Millennium Development Goal of achieving universal primary education. The net primary education enrollment rate of Bangladesh rose from 62.9% in 2000 to 98.7% in 2013 according to the current Annual Sector Performance Review (ASPR 2014). Similar progress has also been observed regarding secondary school enrollment and the reduction of gender disparity in the education sector in Bangladesh, which is a notable improvement compared with its South Asian neighbors, such as India and Pakistan. The combined efforts of donors, international organizations and proactive government policies have contributed substantially to achieving this remarkable progress.

However, little or no effort has been invested in improving enrollment in tertiary education in Bangladesh. The current trend shows that the gross enrollment rate at higher education institutes (at the tertiary level) is only 10%, which is one of the lowest in the world (World Bank 2013). The problem is even more pronounced in rural areas where the enrollment rate for tertiary education is much lower compared with urban areas, and where opportunities are limited and the quality of secondary education is questionable (Mujeri 2010). Moreover, students have to sit for admission tests for each university to be admitted; these tests are highly competitive and require particular training to ensure success. Preparation centers, namely, “prep schools,” or “coaching centers” or private ventures to provide dedicated training for university admission tests do exist in Bangladesh. However, such centers are rarely interested in extending their services to rural areas for reasons such as low demand and difficulties in providing quality training in rural settings. In addition, the fees charged by these centers are quite high and often beyond the affordability level of rural households.

To solve this demand-supply gridlock, an innovative approach termed “e-education” has been introduced by Atsuyoshi Saisho (from Japan) and Abdul Matin Sheikh (from the BakBon Foundation, Bangladesh), with the active collaboration of the University Coaching Center (UCC), a leading university admission prep school in Bangladesh. Under this intervention, an e-education team has video-recorded the lectures of experienced UCC teachers/instructors on DVDs and played these DVDs, using laptops with the relevant lecture notes and reading materials, to interested students in rural Chandpur, one of the most conservative and

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backward districts of Bangladesh. DVD-recorded lectures have several advantages that could potentially address some of the pressing issues faced by rural students. First, they ensure a high quality of teaching as the recorded videos feature experienced lecturers/instructors who have been imparting this training for years. Second, they address the concerns of low-performing students as the lectures can be repeated as many times as required. Finally, they address the problem of teachers' disincentives, as teacher absenteeism in rural areas is often cited as one of the reasons for low educational achievements of students. During the initial years of the program's implementation, the e-education team claimed that such an innovative technique had a significant impact on university entrance exam performance, which has been eloquently documented in a book written by Atsuyoshi Saisho, entitled *Mae e! Mae e! Mae e! — Adachiku no ochikobore ga Banguradeshu de okoshita kiseki* [Do it! Do it! Go Ahead!] (published in Japanese by Kirakusha Press, Tokyo in 2011.)

To understand further the impact of e-education on rural students in Bangladesh, who could not otherwise prepare efficiently for the university entrance exam, researchers from the University of Tokyo (Yasuyuki Sawada), Kyoto University (Hisaki Kono), and Institute of Developing Economies (Abu S. Shonchoy) engaged in a series of rigorous evaluations of the program using the randomized controlled trial method, the current gold standard technique employed within academia.

In accordance with this method, we randomly assigned interested and similar candidates (based on observable criteria) to one of two groups: those who had viewed lectures on DVD and those who had not viewed these lectures. We found that viewing of the DVD lecture series increased the admission of students to any of the national universities by 22%. We also found that non-cognitive abilities such as extraversion contributed to increasing the impact of the DVD lectures, which is consistent with the idea that improving academic achievement requires the complementarity of quality educational aids as well as personal abilities.

This finding has potential future implications that are not only limited to university entrance exams or to the Bangladesh context, but also extend to a wide range of applications in the education sector of developing countries, globally. DVD-based lectures could potentially help students, especially at the secondary education level, as they could complement classroom learning and enhance the quality of education, which is a significant problem for education experts. Moreover, they could contribute to solving the problem of disparity between rural and urban education and help students to achieve the required skills to enhance human resources, which in the future could lead to better income opportunities that may reduce poverty. Although poor infrastructure like lack of electrification and limited access to computers are still major obstacles to the wide-scale adoption of such interventions in

developing countries, the combined efforts of government and aid agencies could address these issues on a priority basis, which may eventually help to achieve economic growth.

References:

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