

**Muppets and Radio for Learning in Bangladesh:**

Using nonformal education to bridge the divide between education and learning in Bangladesh

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### **Introduction**

In an attempt to improve the likelihood that it would achieve high quality Education for All by 2015, Bangladesh Implemented a Nonformal Education Project (NFE). This project utilizes a variety of strategies, including multimedia, to improve literacy among illiterate young people living in rural regions and in urban poverty. Further, the federal government has plans to make ICT technology compulsory at the primary level by 2021. Bangladesh has a complex education system, yet astonishingly low numbers of primary age students meet competencies. This paper analyzes the effectiveness of using highly accessible multimedia (specifically television and radio) to promote the achievement of education as outlined in the Sustainable Development Goals. The population of students in Bangladesh are a prime target for this discussion as there are current programs initiated by both the national government as well as programs initiated by NGOs. In search of a path forward, this paper will consider the costs and advantages of both television and radio in the unique academic setting of Bangladesh.

### **Bangladesh Today**

The state of education in Bangladesh, as is the case in many low- and middle-income countries (LMICs) is one that needs immediate attention. Of the 14 countries in the region, Bangladesh is ranked 7<sup>th</sup> in its ability to provide high quality basic education (Tarafdar & Khan 2012). The Millennium Development Goals (MDGs) drew notice to the barriers of access to education that exist around the world. In response, the world saw an increase in the number of students that were able to attend school. In the same period of growth, the quality of education and the presence of learning in the classrooms did not change. Now, in Bangladesh classrooms are more full than ever before and the quality of learning has not received the amount of attention it needs to improve learning across the populations of the country.

In the case of Bangladesh, only 10% of pre-school aged children are currently in preschool (Mares & Pan 2013). Further, while nearly 100% of primary age children attend school, the nation is plagued with low learning outcome based achievement and a 50% dropout rate. Rahaman and Hoque (2014) estimate that only 1% of all children in Bangladesh are completing primary school with having achieved the set competencies.

The education system in Bangladesh is one that appreciates innovation and diversity in education style. For the most part, schools in Bangladesh are either operated formally by the government or by Non-Government Organizations (NGOs) who have been invited by the government to fill the gaps left by the formal system. These gaps most often exist for children in rural Bangladesh and children living in poverty in urban Bangladesh. While the NGOs are at the dispense of the federal government, they are provided the flexible and malleable opportunity to design their own curriculums. This freedom opens the door for an education revolution. However, oversight and accountability to national and international standards act as the primary obstructions between the education system of today and a learning driven system of the future.

In Bangladesh's 7th 5-year plan the primary focus is on the use of Information and Communication Technologies (ICTs) to improve the quality of life across industries in the

country. The plan includes a constellation of 19 policies and regulations that outline the ICT powered road to becoming a middle-income nation by 2021. In his description of the strategy, the Honorable Prime Minister of Bangladesh explained his digital for “Digital Bangladesh” as being reliant upon four key principles “(a) developing human resources ready for the 21<sup>st</sup> century; (b) connecting citizens in ways most meaningful to them; (c) taking services to citizens’ doorsteps; and, (d) making the private sector and market more productive and competitive through the use of digital technology.” (General Economics Division 2015, p. 612). The primary goal of “Digital Bangladesh” is to support the power of the Knowledge Economy (KE). The KE is the system responsible for the process of knowledge sharing for the purpose of development. The government of Bangladesh believes that ICT is the best tool for significantly improving the rate and quality at which knowledge is acquired. Currently, in a ranking of international KEs, the KE of Bangladesh is ranked 137<sup>th</sup> out of 146 nations. In the scope of education, Bangladesh believes in using ICT to support the KE in four ways. First, Bangladesh is committed to creating an e-learning infrastructure. This initiative is responsible for the development of multimedia classrooms and the training of teachers to create multimedia content. Second, the country believes in training the ICT employees of tomorrow. The 7<sup>th</sup> 5-year plan of Bangladesh states its commitment to the measurement and development of ICT education. The third way Bangladesh believes ICTs will support education revolves around classroom design. Bangladesh is committed to the development of ICT-based education in secondary and higher secondary education. This ICT-based education focuses on providing access to nonformal learning opportunities with ICTs. Finally, Bangladesh intends to use ICTs to increase the number of students on the vocational tracks of education. (General Economics Division 2015). Bangladesh’s stated commitment to a digital future that supports the KE builds a platform upon which the future of nonformal education in the nation can be fabricated.

One potential vehicle for the delivery of a digital education is learning focused multimedia content. While only 10% of preschool aged children in Bangladesh are in preschool, more than half of them have access to a television. Further, almost all families in rural Bangladesh have access to a radio as it remains the chosen method of the government to disseminate knowledge. For the stage of early childhood, more families in Bangladesh have access to multimedia devices than have access to preschool. The children least likely to receive a quality education are the children living in poverty and those living in rural Bangladesh. For these children, the recent shifts in the role of community radio (CR) may provide a promising future. In recent decades, the control of the radio waves has shifted from a government monopoly to a mixed ownership platform. Thanks to the Bangladesh NGOs Network for Radio and Communications (BNNRC), a portion of the radio waves in Bangladesh are offered to community members and NGOs to produce contextually relevant information to small populations.

In education, it is the role of technology to provide equitable access to transformational learning opportunities. In the case of children living in Bangladesh, their learning opportunities are limited. However, the commitment to a diverse and innovative education system, its dedication to a digital future, and the high acceptance of multimedia tools in Bangladesh make it the perfect environment for a nonformal multimedia education intervention.

### **Role of Nonformal Education**

Eschach (2007) describes nonformal education (NFE) as voluntary, supported, structured, and prearranged education that occurs at or within an institution other than school. As children who are enrolled in school spend 85% of their waking hours outside of the classroom, this type of education has immense potentiality. For Esach (2007), the highest return on investment in nonformal education will come when it is successfully weaved into formal education. NFE opportunities, such as a trip to a museum or a guided use educational application on a smart phone, are inherently supportive of both cognitive and social constructivism. The game-like strategy often required to master a skill taught by an app suggests a Piagetian development through adaptation. This independent style of learning is a cognitive constructivist approach. Nonformal education in a museum or similar institution often requires careful scaffolding of learning. This Vygotskian method of social constructivism is at the core of most nonformal education interventions. Crucially, the traditionally voluntary nature of nonformal education has the power to both help children learn and help them develop and admiration for learning (Eschach 2007).

For a nation to adopt a complete NFE system into its existing formal education infrastructure would be an incredible feat. However, the aforementioned innovation of the education system of Bangladesh has opened the door to Nonformal education. In 1971, Bangladesh inherited a failed education system. It realized that the formal sector could not reach the diverse populations in the nation. (Nath 1999). In response, and decades later, Bangladesh formed the Bangladesh Rural Advancement Committee (BRAC) which developed the Nonformal Basic Education program (NFBE) and situated it within the Millennium Development Goals. These BRAC learning environments produced graduates that were 2.62 times more likely to meet the expectation of basic education as their non BRAC peers (Nath 1999). The system of NFE in Bangladesh is structured in Upazilas. Each Upazila is a triad of three NGO's, two of which are responsible from program implementation and the other is responsible for their monitoring and evaluation. The national NFE system has five primary commitments: provide quality and relevant programs, provide opportunities for children to become self-reliant learners, establish an interdisciplinary NFE working mechanism, decentralize operations, and successfully manage operations. Recently, the NFBE program made a shift to include life skills as a measurable indicator (Sabur 2008).

The door has been opened to nonformal education in the communities that need it most in Bangladesh. In addition, the opportunity to use multimedia as education is present. Now is the time to implement a multimedia nonformal education program utilizing two of the most prevalent mediums in Bangladesh: Television and Radio.

### **Television for Education**

Television as nonformal education exists in every region of the world. One of the most prominent and measured examples is Sesame Workshop. It's multimedia interventions are designed to help all children all around the world become Smarter, Stronger, and Kinder. The international non-profit organization develops ground up interventions with local stakeholders that revolve around the agreed upon localized educational framework. A team of local researchers, education specialists, and content production specialists host several brainstorming

meetings to understand the unique difficulties of the population and design a comprehensive and appropriate intervention (Lee 2016).

In Bangladesh, the intervention takes place in the form of the popular television show Sisimpur. More than 7 million children in Bangladesh report watching the television show that is not only focused on developing basic skills but is also focused on respecting differences among peers. Across the country, exposure to Sisimpur was higher than exposure to preprimary education (Mares & Pan 2013). Launched in 2005, the coproduction is focused on basic literacy and math, health, hygiene, nutrition, respect, understanding, diversity, family and community relations, and art and culture. On the last point, the culture of Bangladesh has a rich history with puppetry. In response, the coproduction includes locally made marionettes among its case of familiar humans and Muppets.

A compilation of third party research outlines the educational and cultural impact of Sisimpur. 76% of mothers with a television were aware of Sisimpur and 75% of mothers with televisions had children that watched the program regularly. Regularly exposed children demonstrated basic skill abilities that were equivalent to those a year older and who were not exposed to the program. Further, the program shifted perceptions of education away from a natural growth process and towards a process of intentional cultivation. Both parents and children reported being excited about the productions which suggests a high perceived usefulness of the intervention. In a longitudinal study of the impact of Sisimpur, Lee (2008) saw lasting effects on letter recitation, vocab, counting, and cultural knowledge. In addition, more than 60% of children were watching the show 2-3 times per week or more. While the intervention does demonstrate positive correlations with learning and development, television market permeation is still low in the communities that need it most. In a partnership with Save the Children, Sisimpur is broadcast on mobile viewing carts in central locations to provide viewing opportunities to children without television access. Finally, there is a strong correlation between regularity and quantity of exposure and the level of improvement of basic skills demonstration. This demonstrates that regular access to the intervention is crucial and for children living in rural Bangladesh, this is unlikely.

### **Radio for Education**

In contrast to the market permeation problems facing television in Bangladesh, radio is widely distributed across the country. The power of radio, specifically community radio, for education has been demonstrated in regions around the world. When asked about the potential usefulness of CR for education, people living in rural Bangladesh reported a high perceived usefulness. One of the most prominent strengths of CR is its potential for local contextually produced content. Meaning that children can both be taught how to add and the traditions of their culture on the same airwaves (Tarafdar & Khan 2012).

A World Bank (Anzalone & Bosch 2007) review of case studies of the utilization of Interactive Radio Instruction (IRI) explains the usefulness in educating poor and rural populations across nations. Intended to target a specific audience for the sake of improving quality of education, IRI is led by instructors and involves a call and wait process so learners can think about the request. Studies that analyze the impact of IRI in rural communities demonstrate that it is just as effective as using it to supplement education in urban communities. In its cross-country evaluation of a multi-decade IRI intervention in Africa, the World Bank (Anzalone &

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Bosch 2007) saw consistently higher results in Math and Literacy in children exposed to the intervention than those that were not. These results permeated across population diversity.

As demonstrated in the use of IRI to improve the quality of education in countries in Africa, the power of CR is vast and is designed to address the complexities of the failing education system of Bangladesh.

### **Conclusion**

While access to education in Bangladesh consistently ranks remarkably high, the education system is plagued with high dropout rates and poor learning attainment. The political environment in Bangladesh is one that has made a shift in support of radio and has long supported the role of nonformal education to remediate the shortcomings of formal education. In addition, the marketplace is saturated with both radios and televisions. Interventions such as Sisimpur and IRI are nonformal in their nature. They are structured, voluntary, prearranged, supported and they exist outside of the classroom. It is pertinent that Bangladesh include multimedia into its nonformal education framework if it truly hopes to reduce the learning and education gap. The rural nature of the nation makes the argument that a cost effective and high quality nonformal multimedia education intervention is likely a large piece of the puzzle for the improvement of learning and expanding the Knowledge Economy of Bangladesh.

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