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Abstract
Across the globe, governments of different countries have recognized the importance and value of digital technologies in language learning. This article is based on the pilot project of Save the Children using information and communication technology (ICT) in education. Through this initiative, interactive multimedia software based on national curriculum of English Class 4 were developed and tested in selected government primary schools. The pre-intervention survey indicated that the teachers do not have the language competence to confidently facilitate English classes using the Communicative Language Teaching (CLT) approach. The results of the project showed that the use of audio-visual content has strong potential for enhancing and promoting interactive language classes. However, the success of the program depends on how the technology is designed and implemented and how the teachers are trained to use it.

Keywords
ICT in education, interactive classroom, communicative language teaching, audio-visual classroom material

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THE EFFECTIVENESS OF USING TECHNOLOGY IN ENGLISH LANGUAGE CLASSROOMS IN GOVERNMENT PRIMARY SCHOOLS IN BANGLADESH

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Introduction

The field of language education is ever changing. Today's language classrooms are vastly different from that of the mid - to late- 20th century (Eaton, 2010). The focus on language education in the 21st century is no longer on grammar, memorization, and learning from rote, but rather using language and cultural knowledge as a means to communicate and connect to others around the globe (Eaton, 2010). Traditional notions of education are giving way to newer, more innovative ways of thinking about how we learn, teach, and acquire knowledge. The American Council on the Teaching of Foreign Language (ACTFL, 2013) noted that technology has been used to both assist and enhance language learning. It is now rare to find a language class that does not use some form of technology.

The Ministry of Primary and Mass Education (MoPME) of Bangladesh has taken various measures to use technology to improve and modernize the overall primary education system. The 2010 National Education Policy of Bangladesh suggested the use of audiovisual materials in the language classes. To supplement the government policy, Save the Children in Bangladesh created a pilot initiative and started developing supplementary classroom teaching and learning software for English language classes in primary schools. The software was aligned with the National Curriculum and was implemented in 18 government primary schools in one district of Bangladesh.

The current research was conducted by Save the Children to determine the effectiveness of the audiovisual materials produced. The key question that triggered Save the Children to closely monitor and record the changes was, "What are the benefits and challenges of using supplementary audiovisual material in the English classes of the government primary schools in Bangladesh?" This paper is based on the research findings of a one-year (2013) program implementation experience in government primary schools in Bangladesh.

Background and Rationale of the Research

A situation analysis was conducted prior to implementing the project with seven schools to gather baseline data. The focus of the survey was to analyze the students' annual exam result in Math and English along with English teaching practices in schools. Findings (Table 1) indicated that, in English, there was a consistent decline in performances across all

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schools from class one to class four and most of the students in these schools failed English. Apart from School 2, student performance in English decreased slightly when they went on to class 2. The marks degraded abruptly from Grade 2 to Grade 3 for all the seven schools. Except School 1 all the schools' students' grade in English further declined in comparison from Class 3 to Class 4. Thus, Save the Children's project developed the Class 4 e-content software based on the national textbooks and introduced it in 18 government public schools.

Table 1
Scores in English Obtained from the Seven Schools as of 2010

School*	Grade 1	Grade 2	Grade 3	Grade 4
1	67	69	28	39
2	63	41	36	47
3	58	53	24	38
4	70	61	42	33
5	70	50	38	29
6	62	60	21	41
7	68	63	24	33

Source: Situation Analysis Report (2010).

To enhance the learning of students, the Government of Bangladesh introduced communicative language teaching (CLT) approach in English language classes. This approach requires interactive classroom activities and the integration of the four language skills of reading, writing, listening, and speaking (Sharif, 2012). Most schools however do not have the infrastructure to appropriately implement the CLT approach. As a result the 2010 National Education Policy of Bangladesh strongly suggests the availability and use of audiovisual materials for teaching English classes. To support the recommendation, Save the Children's project sought to improve basic pedagogy of English through infusing technology in the classrooms. Save the Children initiated the ICT in education project in 18 government primary schools and conducted research to monitor the impact of the audiovisual content on learning.

Research Questions

What are the benefits and challenges of using supplementary audio-visual material in the English classes of the government primary schools in Bangladesh? That was the key question that guided the ICT pilot project team to do the research. The research was developed to closely monitor and record changes that occurred in schools resulting from the use of supplementary audiovisual material of English Class 4. The major objectives of the analysis were to determine:

1. What effects does the use of supplementary audiovisual material have on children's engagement in English language learning?
2. How are classroom activities conducted in English classes, specifically classes using the CLT approaches, where teachers use the supplementary audiovisual material?
3. Given the experiences of one-year implementation, what are the prospects for the scale-up and sustainability of the initiative?
4. What are the opportunities and challenges of taking the program to scale through collaboration with the government?

Literature Review

It was observed by Warschauer (2000) that the style of language teaching has changed over the years. Warschauer noted that virtually every type of language teaching has had its own supporting technologies. For instance, teachers who followed the grammar translation method (i.e., where the teacher explained the grammatical rules and the students performed the translations) used the technology of the blackboard. This was merely a one-way transmission of information. Later the blackboard was replaced with the overhead projector, which allowed for a teacher dominated learning approach. In the 1970's and the 1980's, university language classes comprised of mandatory sessions in the audio labs. In these labs students would enter at a designated time and perform repetition drills on computers (Warschauer, 2000). The main purpose of the language lab was for students to gain auditory exposure to the language they were studying. The audio lab proved to be quite innovative in the mid-twentieth century since it provided students with exposure to the voice of a native speaker. At that time, students had far fewer opportunities to travel. Whether in the lab or in the classroom, repetitive drills that emphasized technology only and ignored communication achieved poor results. Finally, in the 1980s and 1990s, the field saw a shift towards CLT to emphasize student engagement in authentic and meaningful interactions (Warschauer, 2000).

Advantages of Using Technologies in the Language Classroom

The review of recent research on technology-supported language learning reveals a number of interesting points. For example, Zhao (2013) conducted a study to assess the potential of technology for improving language education. The review found that existing literature on the effectiveness of technology use in language education is very limited in four aspects: 1) the number of systematic, well-designed empirical evaluative studies of the effects of technology uses in language learning is very small; 2) the settings of instruction where the studies were conducted were limited to higher education and adult learners; 3) the languages studied were limited to common foreign languages and English as a foreign or second language; and 4) the experiments were often short-term and focused on one or two aspects of language learning (e.g., vocabulary or grammar). Nevertheless, the limited number of studies indicates a pattern of positive effects. Most studies found technology-supported language learning is at least as effective as human teachers, if not more so.

Hennessy (2005) noted the introduction of ICTs could act as a catalyst in stimulating teachers and pupils to work in new ways. Teacher-pupil and peer discussion, exploration, analysis and reflection, probing, assistance, and feedback characterize these. Hennessy noted that as students become more autonomous, teachers feel that they should encourage and support pupils in acting and thinking independently. Warschauer (2000) described two distinct perspectives about how to integrate technology into the classroom. First, in the cognitive approach learners get the opportunity to maximize their exposure to language in a meaningful context and construct their own individual knowledge. Examples of these types of technologies include text-reconstruction software and multimedia simulation software. Multimedia simulation software allows learners to enter into computerized micro worlds with exposure to language and culture in a meaningful audio-visual context. The best of these programs allow learners a good deal of control and interactivity so they can better manipulate their linguistic input. Second, the social approach emphasizes the social aspect of language acquisition where learning a language is viewed as a process of socialization. From this perspective, students need to be given opportunities for authentic social interactions to practice real life skills. This can be achieved through student collaboration on authentic tasks and projects.

Zhao (2013) stated that pronunciation is a fundamental element of language learning. However providing useful feedback is difficult. In traditional instructional settings, an instructor, who may or may not be good at judging the student pronunciation in the first place, often provides feedback and modeling. Typical ways to provide feedback include having students repeat the pronunciation or explaining how the sound should be produced in an abstract fashion. With the advancement of speech recognition technology, the student can receive feedback in more effective and efficient ways. It has been noted that interactive materials in the classrooms have followed the trend of instructional support. Futher, it has been noted by Kapp (2012) that instructional support features are a necessary part of instructional computer games. Ke (2009) noted that various studies indicated significant results when support was available. Seventeen of the studies analyzed by Kapp focused on instructional game design. These studies generally concluded that learners without instructional support in a game will learn to play the game rather than learning domain specific knowledge embedded in the game. Support features can include elaborative feedback, pedagogical agents, and multi-modal information presentation.

Ke (2009) suggested that instructional games tend to nurture higher order thinking such as planning and reasoning. Ke's conclusion is drawn from studies that looked into cognitive learning outcomes in the areas of basic motor skills, descriptive knowledge, conceptual knowledge, problem solving, and general cognitive strategies. Also, instructional computer games seem to facilitate motivation across different learner groups and learning situations. These findings are based on studies that looked at effective learning outcomes, involving self-efficacy, attitudes toward subject content learning, and effective feedback toward game use, as well as looking at continuing motivation.

Eaton (2010) found that computer-based communication is a beneficial feature for language learning. Computer-assisted discussion tend to feature more equal participation than face to-face discussion. Teachers or a few outspoken students are less likely to dominate the floor, resulting in class discussions that are more collaborative. Zhao (2013) supported this view by stating that access and exposure to engaging, authentic, and comprehensible yet demanding materials in the target language is essential for successful language learning.

Considering the above review of literature, Save the Children introduced technology in the primary school classrooms with the hope of improving language teaching and learning practices. To determine the effects of the introduction of technology in primary schools, Save the Children conducted this research. The following section provides a brief description of the pilot project that implemented by Save the Children in Bangladesh.

The Pilot Project of Save the Children

The ICT in education pilot project has taken the challenge to improve classroom pedagogy through training teachers how to utilize ICTs to develop subject-based content. To promote the CLT approach in the English classes, Save the Children introduced innovative supplementary classroom teaching learning tools in the government primary schools by developing the supplementary classroom teaching software or e-content for Class 4, English, based on the national textbook. One reason for choosing Class 4 was to target the Class 5 national completion public exam. It was expected that the use of e-content with Class 4 would make a positive impact on the results of completion exam. The interactive audiovisual program was used as a supplementary classroom teaching material in the multimedia classrooms (classroom equipped with a laptop and a projector). The developed content was implemented in 18 government public schools. The pilot project covered 810 students and 23 teachers.

Supplementary E-Content

The supplementary e-content consisted of flash based interactive lessons that were developed to align with the national textbooks. Through delivering the supplementary e-content, teachers were able to take full advantage of the potential of technology to enhance student learning. The supplementary audiovisual material of class four was fully integrated into the existing educational processes. The audiovisual materials of the ICT project were developed so that teachers could learn new pedagogical skills by integrating four language skills (listening, speaking, reading, and writing) using interactive tasks. The audiovisual materials were carefully crafted with skills integrated in teaching and activities, so that learners practiced language skills through a variety of engaging activities. The content and methods were selected, designed, and used according to learner interests and needs. For example, in one activity, the emphasis was placed on the presentation of English sound, stress, and intonation patterns through simple conversations. Listening and speaking were also given priority by introducing interactive tasks such as group or pair works and chain drills. Similar activities were also incorporated into reading and writing. The activities covered creative task, but at the same time, not too radical or different from the contexts of the existing national textbook. The activities promoted the use of reading and vocabulary development in the context of reading and to support a range of writing sub-skills, a range of tools to develop listening, matching images, oral descriptions, and the use of transcripts.

In the dual screen option as shown on Figure 1, two different screens were run simultaneously in the classroom: one for the teacher and the other for the students. The dual screen of the software brought in a unique dimension to this software. The teachers' section was shown on the laptop and the students' section was shown on the projector. The content of both the screens were the same, with the exception that the teachers' screen included ***teacher's note*** to guide him/her during the lesson. In order to use the dual screen display, teachers needed to change the computer's display setting to dual screen mode.

Figure 1

Dual Screens in the e-Content with the Teacher's Note

Teacher's Note (in the Software)

The teacher's note provided guidance to teachers about how the instruction should be conducted in the classroom. It focused on how the interaction with the students should be initiated. The teachers' note provided detailed direction to the teachers about how to carry out the teaching of the materials along with samples of language they may use during

interactions with students.

School Implementation

The teacher training focused broadly on professional development in subject knowledge and classroom practice. Teachers in project schools received training on the pedagogy of e-content. The schools implemented the content as part of the regular class routine.

Method

The methodology of this action research was designed to document the observable changes in the English language classes in primary schools resulting from the use of audiovisual materials as supplementary teaching aids. Between March and December of 2013, the team members collected the following data

- Annual school exam results for students in ICT and non-ICT schools
- Focus group discussion with students and teachers
- School monitoring tools (class observation, video of class teaching, review of teachers' reflection diary)

Comparison of Annual School Exam Results

To determine the impact of the use of content on students' learning, the researchers collected the English test scores on students' annual school exams in November of 2013. A committee of the local sub-division developed the school exam for all the schools. Teachers checked the exam answer-scripts. The project team members collected results from 15 ICT schools and compared them with the results from 15 schools that did not use the supplementary audiovisual content in the classroom. A limitation was that it was not possible to collect the results from all 18 pilot schools because three schools were not ready with students' result sheets. As a result, the team collected data from 15 ICT schools and 15 non-ICT schools (control schools) instead of 18 maintain comparable data sets.

Focus Group Discussions with Students and Teachers

The English content was piloted in 18 project schools with 23 teachers. There are more teachers in the study because some schools have to sections of Class 4 due to a large number of students. After implementing the intervention, three focus group discussions were conducted with the trained teachers. Two focus group discussions were conducted with randomly selected students in the ICT project schools.

Review of School Monitoring Tools

During the first year of supplementary content implementation, the ICT project team observed 56 English classes. Class monitoring was also conducted via video recording of regular classes teaching. To determine the effects of supplementary e-content in English classes, the team also observed 13 non-ICT classes where the teachers did not use any audiovisual material. See Table 2 below for details.

The project team members visited schools to observe lessons. Observations focused on teachers' and students' roles and ways the supplementary content was used in authentic classroom settings. The observed lessons were followed directly by informal discussions with teachers. During these discussions, teachers provided immediate reflections on their lessons. In addition to observing classes the research team analyzed lesson plans, activity sheets, and samples of student work. The teachers' reflection diaries were also reviewed.

Table 2
Classroom Observations

Observation Type	Number of Observations
Classes (e-content)	56
Video Recorded Classes (e-content)	13
Observed Classes (non-ICT)	33

Findings

The findings are based on an analysis of school exam results from both ICT pilot and non-ICT schools, focus group discussion with teachers and students, and class observations. The team analyzed the findings from two perspectives: 1) Impact on the students' learning outcomes; and 2) Changes in the classroom pedagogy and teacher development. What follows is a summary of the findings from the project.

Effects of Supplementary Audiovisual Materials on Students' English Language Learning

To understand the impact of the innovation on students' learning, test score were collected for Class 4 students' from their annual final school examination held in November 2013. The research team obtained students' test scores of 15 ICT schools. For comparison, the team also collected test scores of 15 non-ICT schools in the same sub-division. It is important to note that the local Upazilla Education Office makes a rating of school. As such, all 15 ICT schools and all 15 non-ICT schools were in the B grade category. As detailed in Table 3, the mark analysis showed a higher achievement for students in ICT schools than students in non-ICT schools.

Table 3
Average Test Scores on the 2013 Annual School Exams

School Type	Average Test Scores
ICT Schools	51.87%
Non-ICT Schools	38.89%

Note: 15 schools in each school type.

Table 4
E-Content and Student Learning

Students are…	Females	Males	Percentage
more attentive and focused in English class	6	5	78.57
learning the usage of correct pronunciation	6	4	71.43
more inclined towards speaking English in the classroom	4	5	64.29
building vocabulary	8	4	85.71
learning concepts of English language quickly and easily	9	5	100.00

Note: 14 teachers were selected at random out of 23 participating teachers from 5 schools.

Findings of Focus Group Discussions

The objective of the focus group discussions with teachers was to understand their

perspectives about the practice of English teaching with ICT. A summary of the comments from the three focus group discussions with 14 teachers is shown in Tables 4-7.

As shown in Table 4, most teachers found the e-content to be useful for the students. Nearly 79% of the teachers said the students were more attentive and focused in the class when using the e-content. 71% of the teachers noted that students were learning the usage of correct pronunciation. 64% of teachers reported that students were eager to speak English. 86% of the teachers indicated that students showed an increase in vocabulary abilities. All of the teachers indicated that students showed competency in learning the concepts of English language quickly and easily though use of the e-content.

Table 5
E-Content and Teachers' Personal Development

Elements of Teachers' Professional Development	Females	Males	Percentage
Rigorous practice in all four language skills	9	5	100.00
Helping to pronounce correctly	8	3	78.57
Acquiring skills for using the computer more competently	4	5	64.29
Support better facilitation in classroom language and instructional language	10	2	85.73

Note: 14 teachers were selected in random out of 23 participating teachers from 5 schools.

Table 5 illustrates how the e-content fostered the professional development of teachers. All of the teachers said they were able to practice all four language skills through the e-content. Nearly 79% of teachers said the e-content helped them pronounce words correctly while 64% of teachers said they acquired technology skills from using e-content. 86% of the teachers said the e-content supported their facilitation of classroom language and instructional language.

Table 6
Usefulness of E-Content as a Teaching Tool

Comments	Females	Males	Percentage
Classes are vibrant and lively	9	5	100.00
Extra tools related to teaching not required	6	5	78.57
Availability of more pictures and activities	6	4	71.43
Activities give students opportunity for more practice	5	5	71.43
Pictures help students understand difficult concepts easily	9	5	100
Opportunities available for repetition	6	5	78.57
E-content helped evaluate the class easily	9	4	92.86
Cctivities can be done within short span of time	7	5	85.71
No need for make extra materials	8	5	92.86

Note: 14 teachers were selected in random out of 23 participating teachers from 5 schools.

The supplementary audiovisual content for Class 4 was generally well received. Table 6 details the comments by the teachers in the focus group discussions. The comments indicate that both teacher and students benefited from the e-content in various ways. 100% of the teachers said the e-content helped to make classes more vibrant and lively. Nearly 79% suggested they did not require extra tools related to teaching. 71% of the teachers said the e-

content has extra activities that enabled students to practice more. 100% of the teachers said the e-content provided ample opportunities for repetition to develop students' understanding. Nearly 93% of the teachers said the e-content made it easier to evaluate students' progress. 86% said the e-content helped students' complete activities in a short span of time. 93% of the teachers had no need for additional materials.

Table 7
What Students Like in the English Classroom

Elements	Females	Males	n	%
Pictures of different characters and sceneries	20	14	34	100
Participating in activities using the content	16	15	31	91
Teachers allowing to use computers in some activities	17	22	39	85
Listening to rhymes	19	14	33	97
Listening to the English language voices	20	10	34	100
Lesson related to the textbook	18	10	28	82
Facilitate speaking and listening	20	11	31	91

Note: 34 students were selected randomly from 5 schools

The ICT team conducted two focus group discussions with 34 students from five schools to understand their experiences in English classes where their teachers used the e-content. An analysis of their comments can be found in Table 7. 34% students reported enjoying the pictures of different characters and scenes. Most of the students (91%) enjoyed participating in questions and answers through the e-content. A total of 85% students reported using the computer in activities. Almost all the students liked listening to rhymes included in the e-content. All students liked listening to the English language voices. A total of 82% students noted that the lessons were related to the things in their book. 91% students said the e-content facilitated their speaking and listening.

Observation and Video Analysis of ICT and Non-ICT Classes

To understand the impact on the use of technology in the language classes, the project team members observed 56 English ICT classes and 33 non-ICT classes. In addition to class observation, the researcher team recorded regular class teaching using flip cameras. The classroom observations were analyzed by four categories: infrastructure, classroom pedagogy, students, and community. The observations are summarized below.

Infrastructure and Assets

The most significant change in the English classes was the introduction of the ICT infrastructure and audiovisual materials. Teachers from the ICT schools as well as the non-ICT schools indicated that the presence of technology infrastructure in the ICT schools made the ICT schools more visible to students and parents and to neighboring non-ICT teachers.

Classroom Pedagogy and Teachers

Through the classroom observations it became evident that the most significant change was seen in the interactive language teaching approach. The change of teaching approaches can be compared and analyzed against four stages of technology use in the classroom (as illustrated by Engida 2011). In four stages Engida illustrates the development of teachers in terms of their understanding, skills and use of ICT in the learning environments. At the emerging stage

the teachers become aware of ICT. At the applying stage, the use of ICT enhance their traditional teaching. At the infusing stage, teachers' skills and understanding facilitate enhanced use of ICT across subjects. The last stage is the transforming stage, which specializes on ICT enhanced skills for creating and managing interactive learning environments.

The change of classroom pedagogy and teaching approaches of this research are compared below against four stages of technology use in the classroom (as described by Engida 2011).

Emerging. The integration of audiovisual content in the classroom played a positive role in creating learner-oriented classrooms. Through the technology, it was possible to examine students' actions and thinking process. While observing the classes, it was noticed that the questioning skills of students increased. Thus the tool supported students' learning by directing them to useful resources, rephrasing important questions, and providing additional information and answers to their questions.

Applying. While visiting the schools and from the teachers' reflection diary, it was determined that the trained teachers put effort into planning the English classes. If for any reason the class was not held at the regular time, they scheduled make up classes. It was observed that with the supports of school management, all ICT schools tried to redesign the class routine to avoid overlapping classes with the other teachers**.**

Infusing. The introduction of supplementary e-content provided significant support for the teachers conducting the lessons. It was noticed that teachers were using English while providing instructions. The content passively supported practicing English in the classrooms. Particularly, the innovative dual screen intervention was found to be highly useful for the teachers. The hints/examples/possible answers including the additional guidance helped teachers provide better-facilitated English classes.

Transforming. The activities in the e-content required teachers to conduct classes by engaging students. The supplementary content put emphasis on the speaking skills activities of the textbook. This engaged the students in talking more and practicing English more in the classrooms. The introduction of e-content acted as a catalyst and stimulating teachers and pupils to work in new ways. These were characterized by teacher-pupil and peer discussion in exploration, analysis, and reflection. The integration of class four content in class teaching made the learners' practice reading, writing, speaking, and listening in English for a variety of real and engaging purposes

Students

The most significant change for students was that the classroom environment became more enjoyable as compared to non-ICT classes. The students were very attentive, excited, and curious in the English classes through use of the e-content. The integration of audiovisual content in the classroom played a positive role in creating learner-oriented classrooms where it was possible to monitor students' actions and thinking processes. While observing the classes, it was noticed that the questioning skills of students' also improved. Thus the tool supported students' learning by directing them to useful resources, helping them rephrase important questions, and providing additional information and answers to their questions.

Challenges and Recommendations

The school observation findings and focus group discussions with teachers indicate that some challenges in the use of supplementary audiovisual content. The major objective of introducing the supplementary audiovisual content was to improve the learning outcome of all students. While observing the class, it was noted that the teachers put more focus on

completing the content rather than focusing on language or grammar. In contras, in non-ICT class the teacher ensured all students memorized the answers or allowed all students to drill in chorus. Keeping pupils on task is important for teachers in order to maintain the focus of the lesson. The teachers needed more training to use the content effectively and in conjunction with the textbook.

While observing classes, it was noted that some teachers completed activities without ensuring all students mastered the content. Some teachers did not give enough time for students to read or to do the given exercises. Thus the teachers placed more focus on showing the slides of the e-content. In every visit, it was observed that a number of students were actively participating in the classrooms. At the same time it was also seen that a group of students remained silent or failed to do the given task. Thus teachers did not provide attention to the slow learners. Thus it cannot be said that the supplementary content successfully reached all students.

Limitations of Technology

The major findings of the focus group discussions with students found that all students enjoyed the English classes. However, psychological factors such as enthusiasm, might sometimes lead to negative results with the use of ICT in literacy learning. (UNESCO, 2012) noted that sometimes students prefer interacting with physical teaching materials rather than digital materials. The teachers needed to pay close attention to students' responses to the use of ICT in teaching by balancing these with traditional teaching.

Less Time for Lesson Preparation

It was found that sometimes teachers were using the content as a tool without having enough preparation. This was often a result of a lack of facilities for preparation before going to class. In the pilot schools, there was one laptop that was not kept in the classroom during the school hour. Among the project teachers, only three teachers had personal computers. This situation required that teachers to complete their preparation for the lesson after school hours or during their breaks.

Maintenance and Troubleshooting

A need was identified to create a structured management system to provide technical support. It was observed that the laptop and other equipment required a central office procurement system. This was time consuming, took a minimum of three weeks and limited time for regular class activities. In addition, a trouble-shooting system is essential for fast and smooth maintenance of the technology.

Discussion and Recommendations

The school observation findings and literature review for this report showed that teachers in Bangladesh are not always familiar with the CLT approach. Although the English textbooks are written in accordance with the CLT approach, classrooms do not provided adequate facilities for students to practice all four language skills. Similarly, teachers are not always familiar with the CLT approach and lack the required competencies in English communication. The ICT pilot not only brought better presentations to students, it improved teachers' learning of content, thereby improving content presented to students. The supplementary content provided opportunity for students and teachers to listen and learn correct pronunciations.

In rural Bangladesh, the opportunities for hearing and speaking English is limited. The

non-ICT class observation showed that most of the teachers followed the grammar translation method. This method did not help student see the value of English, rather, students 'learned' English just to pass their exams (Sharif, 2012). The lack of required competencies in the English communication skills among teachers also makes the implementation of the CLT approach quite challenging.

The introduction of the audiovisual material supported teachers in effectively applying the CLT approach in the classrooms. The e-content supported students in dialogue practicing, reading, and listening, context-based question and answer tasks, peer checking, drills, games, role-play, drama, interview, brainstorming and performing in pairs or groups. The dual screen option of the developed e- content was found to be the greatest innovation and brought a new dimension to this project. The teachers' section with detailed directions about how to carry out the teaching and learning of the materials in class, along with sample of the actual language that they used for interaction with students, helped teachers better facilitate instruction. Teachers in the project felt that the use of technology was highly advantageous, both to improve students' general language abilities and to assist students in learning the kind of English communication and language skills increasingly necessary for their academic and personal life.

It was noticed that in the schools where teachers performed well in the teacher training, they performed better in classroom facilitation as well. Thus success of the introduction of the e-content fully depended on the teachers. Tailor-made professional development needs to be focused on different language competence and different disciplinary expertise of teachers through frequent and effective in-service trainings. The training should emphasize the importance of focusing on pedagogy rather than on technology itself.

The findings of the project provide evidence that the primary school teachers of Bangladesh also need audiovisual classroom materials for effective teaching. The findings indicate one approach to introducing technology in the language classroom of the government primary schools in Bangladesh and highlighted opportunities for further exploration and research.

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