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MOBILE TECHNOLOGIES FOR (ENGLISH) LANGUAGE LEARNING: AN EXPLORATION IN THE CONTEXT OF BANGLADESH

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ABSTRACT

Milton's (2002) literature review of languages, technology and learning found that language laboratories "...proved to be a useful tool, but only one tool, in the hands of a good teacher, and a huge waste of time and money in the hands of a bad teacher" (p16) with computer language labs being "...something of an oddity... [with] no clear method or best practice for using them" (p17). Instead, Milton identified numerous examples of effective language learning supported by broadcast (radio) or recorded (tape, CD) audio. Recently, research has begun to focus upon mobile learning (e.g. Naismith et al, 2004), but the potential of mobile media players (for example, the iPod) is only recently being explored. It has been suggested that language learning is one of the disciplines particularly likely to benefit from widespread ownership of mobile devices such as phones and media players (Kukulska-Hulme, 2006). For example, Rosell-Aguilar (2007) has begun to develop a theoretically informed pedagogy of podcasting, as a means of providing language-learning resources on mobile devices, suggesting podcasts offer a number of advantages for language learning (p. 479). This paper examines the opportunities for mobile language learning in the context of Bangladesh, where mobile devices are becoming increasingly affordable and ubiquitous. It is hoped that this paper also provides some insights into mobile learning for language education policy makers, distance education institutions and language teachers.

KEYWORDS

Mobile technologies; iPod; language learning; Bangladesh

1. INTRODUCTION

In this paper, we briefly examine the changing landscape of language teaching methodologies, in particular, English language teaching (ELT). We, then, explore ways in which information and communication technologies (ICTs) have influenced language learning. We particularly consider how mobile technologies may enhance ELT practices in Bangladesh. To this end, we describe the English in Action (EiA) project in Bangladesh which is a major (inter)national ELT initiative employing mobile technologies.

2. EFFECTIVE LANGUAGE LEARNING AND TEACHING

Language learning and teaching methodology has undergone various changes over the last four decades in search of effective methods: moving from a traditional grammar-translation method to more student-centred methods such as Total Physical Response, Communicative Language Teaching (CLT) and Task-Based Learning (TBL) which are more popular among language teachers (see Richards and Rodgers 2001 for an overview). CLT, in particular, appears to be appealing to many teachers. Although teachers from different parts of the world have viewed CLT differently, it is widespread in the ELT world. In addition to the student-centredness of this method, communication (and hence meaning) is at its heart. As CLT, in its broader sense, is the core methodology considered in this paper, it is further explained below.

The fundamental principle underlying CLT is that we learn to communicate by communicating (Widdowson 1978). Language is viewed, not as an abstract system of rules, but as a tool to achieve a range of social purposes, for example, buying rail tickets, listening to the news, filling out an insurance claim, reading a technical manual, or negotiating a business deal. In other words, language is functional (Halliday 1994). If the goal of language learning is to communicate, then language teaching should reflect these real-life purposes. Learning to parse a sentence into its component parts, for example, is of little help when it comes to buying rail tickets, and a painstaking study of a poem by Tennyson is not the best preparation for reading a technical manual. We can draw a distinction between grammatical competence (the abstract knowledge of the rule system of a language) and communicative competence (the ability to use language effectively and appropriately to achieve a range of purposes) (Hymes 1966, Canale and Swain 1980); CLT is about developing communicative competence.

CLT has found a fertile ground in the ELT world. In particular, we notice that in most developing countries there have been initiatives at the government levels to introduce this methodology into the English language curriculum in schools. For example, Bangladeshi government in collaboration with the Department for International Development (DFID) of the UK government jointly funded the English Language Teaching Improvement Project (ELTIP) in 2000 in order to develop CLT-based textbooks for grades 9-10 and 11 and 12 and train teachers in CLT (Hamid and Baldauf 2008). However, how effectively CLT approach has been adopted in practice and whether it has actually enhanced students' English language competence remains questionable (see Chowdhury and Le Ha 2008; Hamid and Baldauf 2008; Imam 2005).

An important, though under-researched component of CLT, is the nature of activity used in the teaching and learning process, and the tools which enable that activity, both of which are implicitly driven by theories of learning. Drawing upon Vygotskian socio-cultural theories of learning (Engeström 1999; Lantolf and Thorne 2006; Vygotsky 1978), *Activity Theory* views human actions as a system in which the activity is mediated by symbols, tools and artifacts, to achieve a certain object or goal. Responsibility is distributed among the 'community' of participants, who may create rules, codes, practices, roles, artefacts, tools, relationships and activities in order to reach the goal (Engeström 1999). In a language learning context, both the teacher and learners are participants and they work together towards the goal of language learning, using a variety of conceptual, linguistic and physical tools. The physical tools might typically include a chalkboard, textbooks, exercise books, pens and pencils and other school materials (which, under a broad definition, might be considered ICTs). In the next section, we consider the role of electronic or digital ICTs as tools for supporting language learning activities.

3. TECHNOLOGIES AND LANGUAGE LEARNING

The futurelab literature review of languages, technology and learning (Milton, 2002) was relatively unimpressed with the language learning outcomes of language laboratories that "...proved to be a useful tool, but only one tool, in the hands of a good teacher, and a huge waste of time and money in the hands of a bad teacher. There really is no evidence to suggest the use of language laboratories improved the efficiency of language learning overall" (p.16).

Milton was similarly dismissive of the use of computer suites for language learning, which he found 'something of an oddity... [with] no clear method or best practice for using them' (p. 17).

However, the literature review found numerous examples of good practice using recorded audio media (CDs and Tapes). Around this time, the nascent field of 'mobile learning' was beginning to be established. But portable media players (for example, the iPod) which could store and play back vast quantities of

recorded audio media, were not included amongst the many portable learning devices considered in another major literature review by futurelab (Naismith et al, 2004), that focussed upon mobile learning.

Media players are now being acknowledged as potential ‘m-learning’ tools and it has been suggested that language learning is one of the disciplines particularly likely to benefit from widespread ownership of mobile devices such as phones and media players (Kukulska-Hulme, 2006).

In tandem with, and contributing to, the rise in popularity of media players, has been the ‘podcast’: a portmanteau of the words ‘iPod’, the most popular model of media player, and ‘broadcast’. Wikipedia (accessed June 2008) defines a podcast as: “...a series of digital-media files which are distributed over the Internet using syndication feeds for playback on portable media players and computers. The term podcast, like broadcast, can refer either to the series of content itself or to the method by which it is syndicated.”

Campbell (2005, p. 34) argues that the rapid emergence and popularity of podcasting is a result of its:

- Ease of publication
- Ease of subscription
- Ease of use across different devices

Rosell-Aguilar (2007) has begun to develop a theoretically informed pedagogy of podcasting, within a broadly social constructivist frame. Rosell-Aguilar suggests that podcasts have a number of advantages for language learning (p. 479). These include providing access to authentic language content produced by native speakers, or alternatively, bespoke ‘teaching content’, which can be:

- In a format that is portable and easy to use
- Attractive to end users
- Motivating to students
- Easily accessed
- Produced and distributed at minimal cost

As we move from twentieth century broadcast technologies to the twenty first century, the affordances of recorded audio for supporting language learning are being carried forward and extended by digital audio, such as podcasts. Podcasts can be further enhanced, by adding images, movies, text or hyperlinks, although as yet the affordances of this emerging technology for enhancing and extending language learning remain under-researched.

4. LANDSCAPES OF BANGLADESH

4.1 English language teaching

Bangladesh is always associated with the mother language movement because the nation was founded on the basis of the language movement (Bhasa Andolon) of 1952. About 98% of the country’s population speak Bangla and the majority of the people are Muslim (83%) (Imam 2005). It was a British colony until 1947 and was East Pakistan until its independence as Bangladesh in 1971. Soon after this, for obvious reasons, Bangla was the medium of education at all levels except in Madrasah schools and some elitist English-medium schools in the cities (see Hossain and Tollefson 2007 for language-in-education policies in Bangladesh).

However, as English gradually gained ascendancy as a global language, it has come back as an economically valuable language in Bangladesh, (though it may still be seen as a colonial language and a potential threat to Bangla and the local culture – see Imam 2005).

English is now a compulsory subject (though see Hossain and Tollefson 2007, p. 252) throughout school education. As in other developing economies, the Bangladesh government has taken English language teacher training initiatives to improve the profile of English in the country and prepare a workforce that is able to fully participate in the global economy. In this sense, English language competence is associated with ‘development’.

Yet despite this, and the investments made by the government and the funding agencies such as DFID and World Bank, the level of competence among students and their teachers is often low. Although Bangladesh has already started using CLT as an ELT methodology, producing textbooks and training teachers in this line, the actual implementation of CLT is unsatisfactory. For example, the Teaching Quality Improvement (TQI) study showed that classroom practice in ELT is still traditional grammar-translation

method. This is confirmed by other researchers (e.g., Hamid and Baldauf 2008; Chowdhury and Le Ha 2008).

This situation can only be changed through a positive impact of teacher education on both teachers and their students, thereby impacting on the society and the national economy. To be effective, such teacher education must succeed in changing the nature of the language learning activity in the classroom.

4.2 Information and communications technologies

Information and Communications Technology (ICT) is widely used in language learning and teaching, both in the West and in developing countries. Conversely, people literate in English are also likely to find easier to achieve ICT literacy in countries where information about ICT is not yet available in the local vernacular. Therefore, there is an inter-relationship between English language literacies, ICT literacies, and opportunities for participation in an increasingly globalised society and economy.

Bangladesh is one of the most densely populated countries of the world, with a population of 138 million people, but despite ongoing urbanisation, three quarters of the population live in rural areas (E-9 Ministerial Review, 2008). As of the most recent survey in 2005, mains electricity still only reached 31% of the population (E9 Ministerial review, *ibid*).

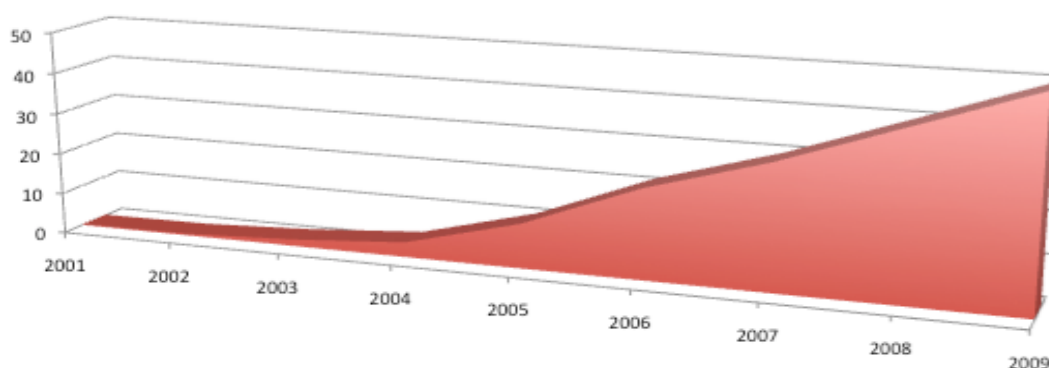
In such contexts, the use of mobile technologies (such as portable radios, mobile phones or MP3 players) has some significant advantages over traditional desktop computers. Mobile technologies have less dependence on the infrastructure of the learning site: they can be charged by solar power or light-weight generators (Mahmud, 2006 p2), or charged at peri-urban locations that have mains electricity or generators (Leach et al, 2006 p21), in-between uses at the site of learning. Mobile technologies can also be used without the kind of retrofitting that is required for desktop computers (such as desks, wiring, ventilation and security typically associated with computer suites) and the associated costs (Moses, 2003). Indeed, it has been suggested that the total cost of ownership of new mobile technologies may be significantly below the running costs of refurbished computer suites given 'free' by donors (Power, 2006).

It has been argued that FM radio is *the* most cost-effective form of learning & communications technology for poor rural communities (Hunt 2007, Perraton et al 2001), with relatively high levels of radio ownership coupled with social practices (sharing radios, group listening) making this a much more accessible form of ICT than computers for many communities, particularly in Sub-Saharan Africa. But in the context of Bangladesh, radio coverage is poor outside the main cities; following from this, levels of radio access and ownership also appear to be relatively low.

By contrast, the penetration of the mobile phone has been far more pervasive, rising from below 1 million adults in 2001, to 36 million at the beginning of 2008 as shown in Figure 1 below. Indeed, the growth has been extraordinarily rapid: in the month of January 2008 alone, over 2 million Bangladeshis became mobile phone subscribers for the first time (Reuters – Paul, 2008). By May 2008, a further 6 Million subscribers had taken the total to 42 million (BTRC, 2008). The 2009 figures in October shows that active mobile phone subscribers have reached 51.4 million (BTRC, October 2009) which is a substantial growth of more than 9 million subscribers for mobile phones.

Figure 1 AC Nielson Media Demographic Survey, 2006 (unpublished)

Bangladesh mobile phone subscribers by year (Millions)



At the current time, most mobile phones in use in Bangladesh are very basic, typically with a black and white display, supporting only voice calls and SMS. However, most of the phones now being sold support audio and music playback, have colour screens, and are capable of accessing the internet and email.

In Autumn 2008, the GSM association hosted a conference entitled *Broadband for All*, which focussed upon how to bring mobile communications, and particularly mobile broadband, to the majority of Bangladeshis at the bottom of the socio-economic pyramid. The expectation of most speakers, from telecoms companies, the regulatory body (BTRC) and the government, was that it would be early in the next decade when mobile internet services and devices are available and affordable to the majority of citizens in Bangladesh; with optimists putting this three years hence, and pessimists 5-6 years.

Mobile technologies, such as mobile phones, web-books and similar ultra-portable devices, are expected to be widely available and affordable technologies, capable of supporting language learning activities and practices, within the next 3 to 6 years in Bangladesh. Therefore, what is required now, is developmental research that explores how such technologies can be used to support ELT in Bangladesh, and out of which arises an effective toolkit of ELT practices and resources.

5. ENGLISH IN ACTION

English in Action is an \$85M, 9-year project to help 25 million people in Bangladesh improve their ability to use English language for social and economic purposes, requested by the government of Bangladesh, and funded by DfID. This project will create teacher professional development activities and resources enhanced by the use of mobile technologies, for use by primary and secondary school teachers, reaching millions of school children.

EiA is an innovative project which will employ mobile technologies such as media players, smartphones and laptops as tools to support and bring about change in CLT classroom practices.

English in Action will have three phases of operation:

I Developmental Research (2008 – 2011): to identify the most effective, scalable and sustainable model of supported Open and Distance Learning for English Language Teachers in Bangladesh, and the most appropriate forms of mobile technology to support this. Working with 4,500 teachers in the Dhaka region, 80% of whom will be teaching in rural schools.

II Upscaling (2011 – 2014): taking the most effective & cost effective model of teacher professional development forward at scale. Working with at least 8-10,000 teachers, from five national districts in Bangladesh. 80% of teachers will be in rural schools.

III Embedding (2014 – 2017): Making the teacher professional development programmes available across Bangladesh, through locally supported Open & Distance Learning. The final phase programme will require Public Private Partnership (PPP) to provide a ‘teachers toolkit’ of mobile technology, classroom resources, and teacher professional development materials.

5.1 A teacher’s professional journey

Being representative of the population as a whole, 80% of the teachers in English in Action will be teaching in rural schools and communities. Such teachers often work in the most challenging situations, with large class sizes, grade repetition, extremely limited teaching resources, poor infrastructure and high exposure to seasonal or environmental strains. Teachers themselves often experience an isolation that is physical, social, intellectual and professional, with few opportunities for professional support, development or networks.

English in Action seeks to empower such teachers by helping them develop professional knowledge, skills, practices and support networks. It will help them develop a ‘professional toolkit’ of resources, knowledge, strategies and relationships that they can draw upon to enact communicative language teaching practices. While there has been some debate over what is and is not communicative teaching, a number of general principles have found widespread acceptance. Within EIA, the materials are designed to reflect the following key principles:

Communicative purpose

Students learn to communicate in English to prepare them for the social purposes they may encounter in their future lives

Student-centredness	Not everything is dominated by the teacher; students have chances to use their own ideas and organise their own way of working
Interaction	Students don't listen to lectures – they practise language skills by interacting with each other in pairs and groups, as well as with the teacher.
Participation	All students participate actively in various tasks and activities
Integrated skills	Students practise all four skills together – reading, writing, listening, and speaking - during each lesson.
Grammar in context	Students look at grammar in context, focussing on how to use it to make meaning in real life situations.

A communicative classroom would therefore feature very little 'chalk and talk' from the teacher, and instead, lively interaction between students as they engage in a range of different activities using English to negotiate meaning in realistic contexts. Building on work coordinated by the Open University as part of the DEEP project (Leach et al, 2005) where state-of-the-art ICT devices were used with teachers in very rural schools, English in Action will produce and evaluate a range of mobile ICT-enhanced, school-based, supported Open Distance Learning (iSOL) programmes for teachers of English:

- In *Communicate*, the iSOL will use relatively affordable and simple media players, enabling the use of audio podcasts (enhanced with text and images), photo and video resources for teacher professional development, and with the use of portable speakers, audio resources for classroom practice. In this intervention, the teachers *receive* pre-determined AV materials designed to support their professional development and practice.
- In *Connect*, the iSOL will extend the possibilities of *Communicate*, by adding the ability for teachers to connect with their EIA peers, and with the wider ELT world, through the mobile phone networks, through voice, SMS and data services. One aspect of this will be the co-option of social network services and applications (such as facebook) to support the development and maintenance of professional networks. In this intervention, the teachers receive AV materials, but also explore further opportunities for dialogue and participation in creating professional networks.
- In *Create*, a smaller number of teachers will use extra-curricular 'English clubs' to explore collaborative authoring of English materials, such as blogs, photo-journals and short films, enabled by small, highly mobile laptop / netbook computers and video cameras. In this intervention, teachers and students turn full circle from being 'receivers' of English media, to authors and creators of English media.

At the time of writing, the first cohort of 400 secondary teachers, drawn from every division of Bangladesh, are imminently about to begin participating in *Communicate*. A small 'pre-pilot' group of 30 ELTs has preceded them by 6 months, carrying out participatory research into the use of the materials and tools in NGO schools from the *Under-privileged Childrens' Education Project* (UCEP), which provides an accelerated primary 'catch-up' education for working children who have previously been unable to access primary education.

The initial indications are that teachers have found little technical difficulty in using the media players, although some have found the professional practice of having to think about and plan their lessons quite demanding. Within the context of a programme of iSOL, this early evidence suggests the use of the media player has enabled teachers to hear English and use English language much more regularly, and with more variety; and through video, to see how other teachers have implemented CLT principles. Together with the audio classroom resources, teachers are beginning to develop richer experiences of English language learning for their students:

"Without an iPod the pace of learning could be much slower. We've been studying English for whole life. But I did not know that English can be understood and learned in the way you (EiA) are teaching."

UCEP English Language Teacher (quoted in Power & Shohel, pending 2010).

6. CONCLUSION

To conclude, language teaching and learning is in transition from teacher-centred approaches towards more student-centred ones, such as Communicative Language Teaching. Such approaches can be linked with a socio-cultural theory of learning, in which one might assert that all learning activities invoke a varied toolkit that frequently includes technologies of information and communication, from the cave painting to the electronic whiteboard (Leach & Moon, 2008). Within developing countries, where 20th Century technologies such as telephone, radio and television have penetrated quite slowly, mobile technologies have advanced comparatively rapidly, in both rural and urban areas. It still remains to be seen whether the increasing power, affordability and availability of mobile technologies can be harnessed to enhance effective language learning activities in the classrooms of Bangladesh, thereby contributing to social and economic development. It is hoped that lessons learned in Bangladesh can be adapted to language education in both developed and developing countries alike.

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