



## ICTs in Language and Literacy Education in Bangladesh: A Critical Review

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The advancement of information and communication technologies (ICTs) has challenged the traditional notion of literacy as print-based reading and writing. In this article, I discuss why integration of ICTs into language and literacy curricula is important from the perspectives of the pedagogy of multiliteracies and sociocultural theories of learning. After reviewing the state of ICT use in language and literacy education in Bangladesh, I argue that the use of ICTs does not automatically guarantee improved student learning. On the contrary, it may reify transmission models of education and situate teachers and students in certain identity positions as passive consumers of pre-packaged curricula. Building on Althusser's notion of interpellation, I give an example of how a top-down ICT-integrated curriculum may severely restrict teachers' and students' agency to interrogate assumptions about power and politics around schooling and to develop a language of critique and hope. I conclude the article with a call for integrating the principles of critical pedagogy into teachers' professional development programs so that teachers may learn to use ICTs in liberatory ways.

*Keywords:* ICT, language, multiliteracies, critical pedagogy, Bangladesh

Recognizing the importance of information and communication technologies (ICTs) in modern societies, both inter-governmental organizations, e.g., UNESCO and OECD, and state governments have prioritized the integration of ICTs in school curricula. Although ICTs are supposed to be used across all subject areas, science and mathematics teachers use them more frequently than teachers of other subjects such as language arts (Martinovic & Zhang, 2012). Nevertheless, scholars of language and literacy education have shown how ICTs that children use in their daily lives can improve their literacy practices (Mills, 2010; Gee, 2003; Kress, 2003). Many believe that technology has “the potential to transform education if teachers reform their instructional practices to engage students in meaningful learning and use of 21st-century knowledge and skills” (Morrison & Lowther, 2010, p. 4). Research institutions such as the MIT Media Lab have been designing various models of technology and literacy development (see, e.g., Cassell, 2004). Underscoring the importance of ICTs in language

and literacy development, professional organizations such as the International Reading Association (IRA) and the International Society for Technology in Education (ISTE) have called for ICT-integration into language and literacy education. One of the arguments underling this call is that language and literacy curriculum has opportunities to utilize ICTs, e.g., using the internet to find contextual backgrounds of a text. Because of strong directives from governments and recommendations from educational scholars, language and literacy teachers—like those of other subjects—have been increasing the ICT use in their classrooms (Hutchison & Reinking, 2011).

Despite the increase in ICT use, I argue that the integration of technologies into the curriculum does not *automatically* promote student learning. What matters is how teachers create a learning environment in which appropriate uses of various technologies scaffold students' learning. Using this argument as the premise of this article, I focus on ICT use in language and literacy education in Bangladesh. I ask two questions in order to

understand the topic under review. First, to what extent do language and literacy teachers use ICTs in their teaching practices and professional development activities? Second, how can teachers use ICTs to foster students' critical consciousness about power and domination, rather than perpetuate a transmission model of education? In order to shed light on these questions, I present a brief discussion of the pedagogy of multiliteracies as a background to the "digital turn" in language and literacy education. Then, I discuss ICT use in language and literacy education from a sociocultural perspective. This section is followed by a discussion of the state of ICT use in Bangladeshi schools. Finally, I discuss critical pedagogy's offerings to teachers' professional development in order for them to disrupt an identity imposed on them as a compliant implementer of top-down curricula.

### **The Digital Turn in Language and Literacy Education**

Notions of literacy have dramatically changed over time. Today, many scholars maintain that to be literate in the 21<sup>st</sup> century, one must be proficient in the new technologies of our time. Teachers are now faced with various challenges to prepare students for digital literacy skills, in addition to the traditional print-based literacy skills. One of the earliest traces of this digital turn was the use of computers in language and literacy education. This trend is frequently referred to as Computer Assisted Language Learning (CALL), which has been used since the 1960s. Warschauer and Healey (1998) divide the history of CALL into three stages: behavioristic CALL, communicative CALL, and integrative CALL. Behavioristic CALL, practiced mainly in the 1960s and 1970s, was informed by the behavioristic learning models such as repetitive language drills. This paradigm of CALL viewed the computer "as a mechanical tutor which never grew tired or judgmental and allowed students to work at an individual pace" (Warschauer & Healey, 1998, p. 57). The next stage—communicative CALL—emerged in the late 1970s when personal computers were being popular and customized for individual use, and when theorists and practitioners were rejecting behavioristic approaches to language learning and teaching. Proponents of this paradigm stressed that CALL "should focus more on using forms than on the forms themselves, teach grammar implicitly rather than explicitly, allow and encourage students to generate original utterances rather than just manipulate prefabricated language" (Warschauer & Healey, 1998, p. 57). The third stage—integrative CALL—grew out of a criticism of communicative CALL that it was being used in a disconnected way. Critics argued that CALL activities needed to engage learners in authentic tasks and to help them learn to use technologies as a continuous process of learning. Thus, the integrative CALL sought "to integrate various skills (e.g., listening, speaking, reading, and writing) and also integrate technology more

fully into the language learning process" (Warschauer & Healey, 1998, p. 58). The principles and practices of CALL were closely intertwined with what would later be called the pedagogy of multiliteracies in the 1990s.

### **Pedagogy of Multiliteracies**

Many believe that the digital turn in language and literacy education is a natural consequence of globalization and the advancement of communication technologies. In recent decades, researchers have extended their focus beyond print-based literacy practices and studied other modes of text many of which are mediated by ICTs. Proponents of the New Literacy Studies (NLS) advocate that research and education of literacy involve "a repertoire of changing practices for communicating purposefully in multiple social and cultural contexts" and literacy practices should be regarded "as constructions of particular social groups, rather than attributed to individual cognition alone" (Mills, 2010, p. 247). Advocates of the NLS also argue that we need to rethink about the theories of literacy (e.g., reading and writing) that have traditionally influenced our understanding of what literacy means. For instance, in the early twentieth century, most teachers and scholars took a "look-and-say" approach to literacy education. The main purpose of this approach was *to read for meaning*, which required no or very little intellectual engagement of students. In this period, we also saw the use of the phrase "functional literacy," which was used to refer to a very basic level of literacy needed to perform menial jobs. The 1950s and 1960s saw little progression toward instructional strategies that focused on children's ability to decode print-based materials. It was hoped that if children learned to decode, their "understanding and comprehension would follow easily and naturally" (Glasgow & Farrell, 2007, p. 3). Other noteworthy developments that took place in the 1980s included the *reading recovery* and the *whole-language* approaches to literacy instruction.

In the 1990s, theorists and proponents of NLS argued for re-conceptualization of language and literacy education because the traditional components of literacy curriculum were not sufficient enough to represent all modes of communication. They believed that traditional linguistic forms were partial bearers of human communications. In the late 1990s and early 2000s, scholars called for a paradigm shift in the field of literacy education. This shift was from a theory of linguistics to a new theory of semiotics—"from a theory that accounted for language alone to a theory that can account equally well for gesture, speech, image, writing, 3D objects, color, music and no doubt others" (Kress, 2003, p. 36). The new theory emphasized the needs and interests of the meaning-makers. This emphasis naturally encouraged integration of available ICTs that individuals used in their everyday lives. For this reason, Lankshear and Knobel (2003) focused on "literacies and issues about knowledge

associated with the massive growth of electronic information and communications technologies... [and also] new literacies associated with contemporary changes in our institutions and economy” (p. 17). Thus, the NLS re-conceptualized the nature of literacy, focused not only on acquisition of literacy skills but also on understanding literacy as a social practice, and recognized “multiple literacies, varying according to time and space” (Street, 2003, p. 77).

The NLS witnessed a paradigm shift when educators and researchers went beyond the traditional notion of literacy as mono-modal linguistic skills. In 1994, a group of 10 educators met in New London, New Hampshire, USA. These educators—now known as the New London Group—proposed a new conceptualization of literacy, and argued that the traditional views of globalization and the advancement of communication technologies. They proposed a pedagogy of multiliteracies to include various multimodal texts such as visual, auditory, spatial, and gestural. The two main goals of the New London Group’s (1996) proposal were:

First, we want to extend the idea and scope of literacy pedagogy to account for the context of our culturally and linguistically diverse and increasingly globalized societies, for the multifarious cultures that interrelate and the plurality of texts that circulate. Second, we argue that literacy pedagogy now must account for the burgeoning variety of text forms associated with information and multimedia technologies. (p. 61)

The New London Group decided to use the word *multiliteracies* to encapsulate the outcomes of their meeting, debates, and discussions. This word denotes two important arguments of the New London Group: “The first argument engages with the multiplicity of communications channels and media; the second with the increasing salience of cultural and linguistic diversity” (Cope & Kalantzis, 2000, p. 5). The first argument is particularly relevant to the topic of this article, i.e., ICTs in language and literacy education. The proliferation of new digital technologies and people’s dependency on them for everyday communication has shaken the very foundation of traditional notion of literacy as print-based reading and writing. As Mills (2009) asserts, “Educators and researchers worldwide are rethinking literacy pedagogy to enable students to participate fully in our dynamic, technological and culturally diverse societies” (p. 103). Thus, the divide between literacy of print-based texts and literacy of the new multimodal, electronic texts—highlighted in the works of the New London Group—has resulted in an increasing interest in ICT use in language and literacy education. This interest in ICTs may be further understood through the lens of sociocultural theory of learning, to which I now turn.

### **Sociocultural Theory of Learning**

Sociocultural theory of learning lends a useful framework to understanding the use of ICTs in language and literacy education. As Street (2003) argues, we must understand literacy practices in terms of “broader cultural conception of particular ways of thinking about and doing reading and writing in cultural contexts” (p. 79). Some may find this perspective problematic because educationists and social scientists rarely agree on the meaning of “culture.” Nevertheless, I adopt a perspective that views culture in terms of the “components of human societies that are created by human groups to meet their survival needs” (Banks, 2008, p. 133). Along this line of argument, Bullivant (1993) defines culture in terms of a group’s survival devices needed to adapt to various environments, one of which is the geographical and physical environment. In other words, any social group adapts to or modifies this environment “through its technology; this constitutes the tools, skills, and knowledge used to achieve practical results” (p. 30). If we consider today’s students as a social group, one of the primary tools that they use to adapt to their environment is ICT of various types. Moreover, due to the dynamic nature of culture, social groups constantly change their cultural tools. For example, we keep our tools up-to-date (e.g., using the latest technologies) in order to meet what Bullivant (1993, p. 33) calls “new adaption pressures.”

ICTs—as cultural tools—may become important learning tools when seen from the perspective of sociocultural theory, which posits that learning occurs through participation in social activities. Theorists in this tradition draw heavily on the works of Vygotsky (1978), who believes that individuals learn by *internalizing* various cultural aspects such as language, tools, and symbols. Individuals transform their practices by negotiating meaning with others and situating their individual actions within collective activity. This sociocultural perspective views learning as embedded within social events in which individuals interact with other individuals, objects, and events. One of the key principles of this sociocultural theory is:

the idea that the cultural tools and artifacts that people encounter as they participate in the activities of daily life are critical to the nature of the learning and development that arises...Because these tools and artifacts are culturally produced and represent cultural innovations and changes, as we internalize their use, our thought is undeniably cultural in nature. (Nasir & Hand, 2006, p. 461)

Therefore, if we want to understand learning, we need to focus on how individuals draw on cultural artifacts and tools to participate in social activities or to solve problems. Recent developments of sociocultural theories in language education research have challenged our understanding of the traditional cognitive and

behavioristic approaches to teaching and learning (Cross, 2010). The sociocultural turn focuses our attention on the situated nature of learning, context in which it takes place, and various tools used for learning.

In summary, the theory of multiliteracies and the sociocultural theory of learning are among the major propellers of ICT use in language and literacy education (NCTE, 2005; Somekh, 2008; Mills, 2010). However, it should be noted that opinions regarding the usefulness of ICT use in school curriculum are polarized. The optimist-proponents argue “that ICT can change the nature and raise the quality of teaching and learning” (Reynolds, Treharne, & Tripp, 2003, p. 151). Such optimist-claim has inspired massive government and non-government investments in ICT integration into education—of both teachers and students. While the proponents see ICT as the panacea for all educational ills and as the necessary fuel for the engines of the “knowledge society,” others see it as the lever to turn huge profits on privatized and corporatized education systems (see, e.g., Cummins, 2000). Recognizing the complexity of and debates about ICT use in schools, some scholars are cautious about any generic and transferable effect of ICT and about an “easy assumption that because children like using technology, this in and of itself gives them the confidence and motivation that enhances learning” (Livingstone, 2012, p. 12). Keeping these nuanced arguments in mind, I now turn to the state of ICT use in Bangladesh, with a focus on language and literacy education.

### **ICTs in Bangladeshi Schools**

Unlike the 20<sup>th</sup> century technologies such as telephone and television, the 21<sup>st</sup> century technologies like computer and mobile phone have penetrated comparatively rapidly in both urban and rural areas in Bangladesh. Recently, the Bangladesh government has decided to increase ICT use in all spheres of civic life, including schools. The government is implementing a large project designed to improve the English language skills of 25 million Bangladeshis by 2017 (BBC Janala, 2014). Furthermore, initiatives have been taken for professional development of language teachers who are using portable digital media players such as iPods and cell phones to acquire new knowledge and skills (Shohel & Power, 2010).

Although there are arguments for and against the use of ICTs in education in the global South, many governments in Asia, Africa, and South America are investing huge amount of resources to integrate ICTs into school curricula (Shohel & Power, 2010). Like other Southern countries, Bangladesh has decided to improve its education sector through integrating modern ICTs. The government of Bangladesh is implementing a nine-year (2008-1017) project aiming at improving the country’s language and literacy education. The project, known as English in Action (EIA) and funded by the UKAID, is trying to use “a combination of existing and new methods,

including interactive audio technology, mobile-technology, print and ICT based materials” to enhance the learning of primary and secondary students, teachers, and adults (English in Action, 2014, para. 2).

Although English has been in the school curriculum since the British colonial era, most students in Bangladesh lack communicative competence in English. Grammar-translation has been the dominant method of instruction, which has resulted in more competence in reading and writing than in speaking and listening (Hasan, 2004). To overcome this situation, the government collaborated with various overseas organizations such as the British Council and the UK’s Department for International Development (DFID). In collaboration with them, Bangladesh made a comprehensive plan known as English Language Teaching Improvement Project (ELTIP). In the late 1990s, the government introduced Communicative Language Teaching (CLT) approach to teaching English in grades 1-12. Other initiatives of the ELTIP included hiring foreign experts to train and supervise teachers and to advise curricular reforms. However, after one decade of investing various types of resource, the goals of the ELTIP have remained largely unattained (Hamid & Baldauf, 2008).

Other challenges in Bangladeshi education sector include a lack of rigorous teacher education programs. A UNESCO report published in 2006 stated that one in five teachers in Bangladesh has no teaching qualification (UNESCO Institute for Statistics, 2006). Moreover, the process of teacher recruitment does not seem to select qualified and competent teachers. In the recruitment exams, candidates are tested on general knowledge such as language, current affairs, basic mathematics, and subject matter knowledge in the candidates’ chosen fields. Such exams do not test teacher candidates’ pedagogical knowledge and skills (Anwaruddin, 2012). Additionally, many teachers’ “own experience of education, both at school and college, is as recipients of a transmission mode of teaching which emphasizes the learning of facts and repetition rather than engaging in higher order thinking” (Thornton, 2006, p. 182). Although some in-service teachers receive B.Ed. training, it often fails to develop their professionalism because large class sizes and emphasis on memorization during the trainings perpetuate the transmission mode of teaching (Thornton, 2006). Most teachers use old-fashioned, chalk-and-talk approaches to classroom procedures. Various components of teacher-centered “pedagogy remain the norm in Bangladeshi school culture where students are in a passive role, limited to memorizing facts and reciting them back to their teacher” (Shohel & Power, 2010, p. 201).

Despite these challenges, Bangladesh is implementing the EIA project to improve the English language skills of students and professional knowledge of teachers. This project heavily emphasizes ICT integration

in classroom teaching and teachers' professional development activities. For example, Walsh, Shreshtha, and Hedges (2011) report on an EIA project that utilizes mobile technologies for teachers' professional development. They find that this intervention was significant for enhancing English teachers' professional knowledge. Furthermore, Shohel and Banks (2010) describe school-based professional development trainings using ICTs, and conclude that "school-based support systems combined with technology enhanced open and distance learning (ODL) are contributing significantly to TPD [teachers' professional development] as an in-service training" (Shohel & Banks, 2010, p. 5483). This intervention was to support skills of communicative language teaching. English language teachers were provided with media players, preloaded with video and audio language learning resources, along with battery-powered speakers for use in the classroom. The authors claim that "materials on the iPod touch, especially audios and videos, are impacting on teachers' personal and professional development" (Shohel & Banks, 2010, p. 5489).

Besides training teachers to utilize ICTs in the classroom, open language learning programs have been established. For example, BBC *Janala* (Janala = window in Bengali) is an English language teaching service that incorporates multiple platforms to reach out diverse populations. It includes mobile phones, websites, television, and print-based media. Since 2009, BBC *Janala* has been using mobile phone as a low-cost educational technology to provide short audio lessons and text-message quizzes to any subscriber of one of 6 mobile phone providers in Bangladesh. The organizers claim that "it is the largest, multiplatform innovation to improve basic English language skills anywhere in the developing world" (BBC Janala, 2014, para. 8). Anybody possessing a mobile phone may have access to this multiplatform language learning service. By dialing 3000 from any mobile phone, a user can learn English lessons such as Essential English, Pronunciation, or English for Work. BBC Media Action and all six mobile phone providers have made an agreement to charge a reduced tariff for this language learning service.

#### How ICTs are Used in the Classroom: An Example

As mentioned above, English in Action is a massive nine-year (2008 to 2017) program aiming at developing English language skills of 25 million Bangladeshi people. This £50 million-project is working closely with the Ministry of Education and the Ministry of Primary and Mass Education of the Bangladesh government. The project also works in collaboration with other partners such as The Open University, BBC Media Action, and two local NGOs—the Underprivileged Children's Educational Program and Friends in Village Development Bangladesh (Walsh et al., 2013). The primary goal of the EIA project is "to contribute to the

economic growth of Bangladesh by providing communicative English language as a tool for better access to the world economy" (Walsh et al., 2013, p. 189). The EIA project takes a school-based professional development (SBPD) approach to its activities. The project leaders claim that their ICT-integrated professional development activities based on the principles of SBPD have "impacted positively on both teachers' and students' lives by significantly increasing their English language competence. Teachers have learned and embodied new communicative language teaching (CLT) practices and adopted robust student centred teaching approaches that have transformed classrooms across Bangladesh" (Shaheen, Walsh, Power, & Burton, 2013, n.p. [my underline]). To shed light on whether or not this claim reflects the reality of ICT use in the classroom, I searched for and watched video clips published by EIA. Below is an example of how a teacher used a technology-integrated curriculum supplied by EIA.



(Source: <http://www.youtube.com/watch?v=SP-ZhYJKK9s> [Accessed: September 16, 2014])

The classroom shown in this video is part of the English in Action project. Here, the teacher uses a pre-recorded classroom conversation between a teacher and her students. As you see in this clip, the classroom teacher has very limited instructional roles to play other than turning on the audio device. Students talk to each other and hardly pay attention to the recorded conversation.

#### Reification of the Transmission Model of Education

As we see in this video, both the teacher and students are supposed to parrot what they hear in the recording. The use of technology in this case reifies the "transmission mode of teaching which emphasizes the learning of facts and repetition rather than engaging in higher order thinking" (Thornton, 2006, p. 182). This model of education has traditionally been the dominant mode of teaching in Bangladesh. What is crucial in the example cited above is that it is not only the students who are subject to the transmission model of teaching. The teacher has also become a compliant learner in the transmission pedagogy. She assumes a passive role while

technology transmits packaged bits of information. This is, in fact, one of the major problems of over-reliance on technology while dealing with social affairs (Heidegger, 1954). The human desire to use technology—be it a stone weapon or a cell phone—is driven by what Habermas would call an instrumental rationality. This form of rationality is embedded in (i) over-reliance on science and rationality to control and manipulate both natural and social worlds, (ii) appeals to and use of knowable and measurable objective facts and laws of and causal relations in these natural and social worlds, and (iii) the ability to choose most appropriate and effective means for a given end (Edgar, 2006). Thus, the use of technology as a means to control the social world leads to a certain kind of decisionism, i.e., “the inability to reflect upon and assess values and goals” (Edgar, 2005, p. 57).

I argue that a certain kind of decisionism is at work in the classroom shown in the video. The way technology is used here restricts the teacher’s ability to not only reflect upon her pedagogical practices, but also exercise her agency as an educator. Technology’s contribution to students’ literacy development is prioritized over the teacher’s contribution to it. This may be compared to a factory context where “the machines appear to do the work, rather than the craftsmen who designed the routine and the toolmakers who developed the machine” (Shannon, 1987, p. 314). Therefore, the classroom culture that we see in the video clip does not seem to allow the teacher to achieve the kind of agency required to act as an agent of change. Indeed, the teacher shown in the video exemplifies what many critics have described as

a low capacity for agency in terms of curriculum development within modern educational systems. This could be seen as the result of such systems having been subject for at least 2 decades to the combined influence of prescriptive national curricula and the use of outcomes steering, both backed by rigorous inspection regimes and the quantitative use of attainment data. (Priestley, Edwards, Priestley, & Miller, 2012, p. 192)

Thus, the modern education systems that adopt an instrumental rationality to achieve quantitatively defined outcomes do much more to erode teacher agency than to encourage teachers to work as curriculum makers. Consequently, the teacher’s lack of agency hinders her from modifying official curricula “to suit the specific and changing situations...to have the greatest possible benefits for students” (Marsh, 2009, p. 103).

When the integration of technology into the curriculum curtails teacher’s agency, I argue that the teacher occupies a particular subject position within the sociopolitical power structure. Below I draw on Althusser’s notion of interpellation to discuss how the teacher’s subject position with its accompanying identities

may result in pedagogical dysfunction when technology is used in ways shown in the video clip.

### **Althusser’s Notion of Interpellation**

Louis Althusser delineates his conception of interpellation in his seminal essay “Ideology and Ideological State Apparatuses (Notes towards an Investigation)” (Althusser, 1971). In this essay, he explores how ideology functions as a mediator between individuals and systems of power. Althusser shows that hegemonic power reproduces itself and attempts to blur various forms of oppression. Through the process of interpellation, individuals learn to recognize themselves as subjects and gradually become complicit in their own domination. Thus, an idea that I have (for example, using ICT to teach literacy is desirable) is not merely on my own idea. It is presented to me and for me just to accept it. The process of interpellation works in a way that pre-determines the individual’s response. Althusser (1971) gives an example of a police officer who shouts “Hey, you there!” As soon as an individual recognizes this call, he/she becomes a subject relative to state ideologies of law and crime. The individual who hears the cop’s call is forced to make a choice. Although it may seem that the individual is a free subject and is given a formality of choice, the freedom is only to *freely* accept his/her subjection. As Choi (2013) describes:

Whether it [the subject] should turn around or not is already decided in advance because, as Althusser says, if it runs, then the cop—the ideological state apparatus—will immediately turn into a repressive apparatus and chase after it. Still, the formality of choice (strictly understood as a *structure* of apparatus) is required because that is what differentiates the operation of the ideological state apparatus from that of a repressive one; Althusser both discriminates and combines these two types in the figure of the cop. (pp. 29-30)

Thus, Althusser’s notion of interpellation illustrates how individuals recognize themselves as subjects by acknowledging and responding to ideologies. As the above example shows, the pedestrian apparently has freedom to respond or not to respond to the cop’s shout. However, the pedestrian knows that the cop will chase after him/her if he/she does not respond to the cop. Therefore, the pedestrian actually does not have any other choice but to turn around and occupies a subject position in the structure of power as represented by the cop. Through this process of interpellation, individuals become subjects within the power structure and acquire necessary attributes that determine their social placement.

When the teacher responds to a top-down call for using technology in a strictly prescribed way, she/he enters into an interpellated relationship with those in the upper tier of the power structure. While the teacher apparently has the “freedom” to refuse to use the

technology in the prescribed way, her/his response is pre-determined—like the pedestrian in Althusser’s example. If the teacher does not respond to the call, she/he will be labeled as a resister, as a bad teacher. Her/his job will be in jeopardy. Thus, in actuality, the education system does not offer the teacher any choice other than responding to its hegemonic call. As Moje and Luke (2009) explain,

Key to interpellation is the power of the call to invoke a response that situates the respondent in a particular subject position embedded in particular ideologies and knowledge systems. Note the importance of others’ recognition—or positioning—in Althusser’s conception of the call and response of interpellation. The respondent’s recognition of self is less critical than is the caller’s recognition of the respondent because it is the caller’s recognition that spurs the process. (p. 425)

In short, the curriculum policy makers’ call presupposes the teacher’s response and thus puts the latter in a subordinate subject position. Being situated in this position, the teacher becomes a puppet in the hands of policy makers, and carries out pedagogical work while being “judged by narrow notions of fidelity to policy intentions” (Priestley et al., 2012, p. 210). As we have seen in the video clip, the particular way technology is used in the classroom does not pay attention to the ecological factors that may affect the teaching and learning in the classroom. Therefore, it is important that we take a look at technology-integrated curricula and conceptualize teacher agency in a broad sense. In Priestley et al.’s (2012) view,

teacher agency is largely about repertoires for manoeuvre, or the possibilities for different forms of action available to teachers at particular points in time. These are dependent upon temporal aspects—the iterative and projective, as well as the practical evaluative possibilities afforded by the material and social configurations of the present context. (Priestley et al., 2012, p. 211)

This notion of agency brings us back to the sociocultural theory of learning that I discussed in the beginning of this article. Although the integration of ICTs in education is partly influenced by the sociocultural theories of learning, technology-integrated curricula are often implemented in ahistorical and de-contextualized manners. In the video clip, we have seen how a one-size-fits-all approach has been taken to using technology in the classroom. We, therefore, need to (re)think about how teachers and students can use ICTs as helpful tools to achieve practical and context-specific pedagogical goals. Below, I discuss how critical pedagogy may be helpful for teachers to avoid being interpellated subjects within the macro power structure in which schooling is regarded as a process of preparing students as obedient and skilled

workers to run the engine of global capitalism (Giroux, 1999; Apple, 2006).

### Implications for Critical Professional Learning

As I have argued, the use of ICTs does not automatically guarantee students’ successful language and literacy development. The teacher is key to creating an environment where ICTs may facilitate student learning. Therefore, teachers need to understand the complex relationships among content, pedagogy, and technology. They also need to develop a critical understanding of technology-integrated curricula, which are often used as effective tools to perpetuate a transmission model of education that aims to prepare students as particular kinds of citizens who are uncritical of (or, unable to recognize) oppressive social and political structures (Anwaruddin, 2013). Therefore, teachers’ critical consciousness is important to teach students to reflect upon their “world” and to take action to transform it (Freire, 1970, 1973).

How can teachers develop this kind of critical consciousness? Various models of professional development have been proposed to increase teachers’ ability to use technology in pedagogically meaningful ways. Educational researchers have emphasized the importance of using ICTs in ways that are appropriate to contents they teach and contexts in which they work. As Law (2010) states, “pedagogical ICT competence, which is the teachers’ ability to make appropriate selection and use of ICT tools in different curriculum contexts for different pedagogical purposes, is the most crucial determinant of actual ICT use in instruction” (p. 211). Thus, there is a general agreement that teachers need to be equipped with necessary knowledge and skills to make appropriate uses of available ICTs. Building on Shulman’s conception of *pedagogical content knowledge*, Mishra and Koehler (2006) propose a framework, which is being widely used to conceptualize the development of teachers’ technological and pedagogical content knowledge. The following visual illustrates the components of this model of professional development.

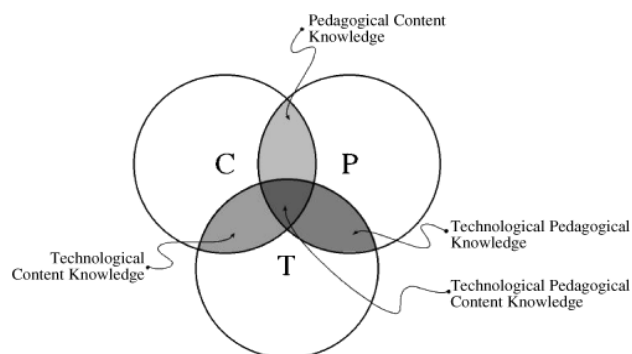


Figure 1. TPACK Model (Mishra & Koehler, 2006, p. 1025).

In this model, Mishra and Koehler focus on teachers’ multifaceted and situated knowledge required for technology integration in teaching. Naming their

framework *Technological Pedagogical Content Knowledge* (TPCK), they illuminate the complex interplay among technology, pedagogy, and content. They argue that:

developing good content requires a thoughtful interweaving of all three key sources of knowledge: technology, pedagogy, and content. The core of our argument is that there is no single technological solution that applies for every teacher, every course, or every view of teaching. Quality teaching requires developing a nuanced understanding of the complex relationships between technology, content, and pedagogy, and using this understanding to develop appropriate, context-specific strategies and representations. (Mishra & Koehler, 2006, p. 1029)

I agree that teachers' knowledge of these three elements—technology, pedagogy, and content—are very important for them to create environments conducive to students' learning. However, what is missing in this framework is the discussion of teachers' and students' development of critical consciousness (Freire, 1973) about technology use. For example, who benefits from the use of ICTs in the curriculum? How does technology position the teacher and the student? Whose voices are heard? Whose are unheard, or silenced? To find answers to these questions, I now turn to the offerings of critical pedagogy.

Critical pedagogy has many meanings to many people. Historically, critical pedagogy was heavily influenced by the Frankfurt School. Paulo Freire was one of the most influential educators and thinkers who popularized the concept of critical pedagogy. Most proponents of critical pedagogy argue “that every dimension of schooling and every form of educational practice are politically contested spaces” (Kincheloe, 2008, p. 2). They point to how various (often invisible) forces operate in (the name of) education in oppressive ways. Therefore, critical pedagogues aim to reveal how approaches to schooling “instantiate a formulaic repetition of sameness and reify a world order that represents itself as natural and commonsensical” (McLaren, 1994, p. 321). In this article, I adopt a conceptualization of critical pedagogy that aims to develop a language of critique and hope, and thus to achieve social justice for all (Shannon, 1995). From this perspective, teachers and students who embrace critical pedagogy strive to “empower themselves for social change, to advance democracy and equality as they advance their literacy and knowledge” (Shor, 1993, p. 24). However, we need to ask an important question: How can teachers and students “do” critical pedagogy? In other words, what does it mean to engage in critical pedagogy?

To answer this question, I draw primarily on Henry Giroux's notion of critical pedagogy. Giroux

(1983, 1988, 1992) discussed a number of principles of critical pedagogy. One of these principles is particularly relevant to my purpose in this article. This principle suggests that teachers move from a narrow language of professionalism toward a language of critique. Giroux (1992) also suggests that teachers adopt practices that reveal historical, social, and ideological parameters that frame educational discourses and their “implications for the self, society, culture, and the other” (p. 79). This is important because teachers work at sites that are inextricably tied to the issues of power, control, and domination. Schools are not neutral institutions that pass on objective knowledge to students. For Giroux, they are fundamentally political institutions because they prepare students as particular kinds of agents with particular political and economic roles in the society. Therefore, Giroux argues that teachers need to work as intellectuals and disrupt the hegemonic structures of schooling that perpetuate domination and control. As Giroux (2012, n.p.) argued:

...by viewing teachers as intellectuals we can begin to rethink and reform the traditions and conditions that have prevented teachers from assuming their full potential as active, reflective scholars and practitioners. I believe that it is important not only to view teachers as public intellectuals, but also to contextualize in political and normative terms the concrete social functions that teachers have both to their work and to the dominant society.

Thus, Giroux's notion of critical pedagogy and teachers-as-intellectuals may help teachers acquire critical consciousness of power and domination in education. By embracing this principle of critical pedagogy, teachers may become actors in, rather than spectators of, education (Freire, 1970).

The model of teacher education and development that Mishra and Koehler (2006) have described as *technological pedagogical content knowledge* is important, but not enough to prepare teachers who will use ICTs in liberatory ways. As we have seen in the video clip above, the teacher uses technology in a way that not only perpetuates the transmission model of education, but also positions the teacher and students as uncritical consumers of pre-packaged materials. Technology is used as a tool to communicate isolated bits of information to students and to reduce the teacher's agency to teach students in ways that are meaningful and socio-culturally relevant to them. Thus, the “technocratic and instrumental rationalities [that] are also at work within the teaching field...play an increasing role in reducing teacher autonomy with respect to the development and planning of curricula and the judging and implementation of classroom instruction” (Giroux, 2012, n.p.). Therefore, it is important that the spirit of critical pedagogy be integrated into various models of teacher education such



as the TPCK of Mishra and Koehler (2006). When teachers develop the language of critique and hope (Shannon, 1995), they are likely to refuse various identity positions imposed on them and on their students. They are also likely to avoid entering interpellated relationships (as in the case of Althusser's *cop and pedestrian* example) with those in the upper tier of power structures. In this way, critical pedagogy has the potential to encourage teachers to challenge and refuse subject positions imposed on them that characterize teachers as conduits between pre-packaged curricula and their students. Critical pedagogy shows the teacher that "the commonsense values and beliefs that guide and structure classroom practice are not a priori universals, but social constructions based on specific normative and political assumptions" (Giroux, 1983, p. 46). A critical pedagogy approach to teacher education—both pre- and in-service—may serve as a powerful form of "resistance against the forces that have stripped teachers of their professional power and dignity" (Sprague, 1992, p. 189). It may also open up a possibility for classroom teachers to resist managerial control over their work and to work toward professional autonomy (Forrester, 2000). Thus, professional learning informed by critical pedagogy holds important implications for teachers to become transformative intellectuals (Giroux, 1988) and to work as an agent of social change.

### Conclusion

The social futures ushered in by the technological advancement have changed the traditional conceptions and practices of language and literacy education. For example, the pedagogy of multiliteracies, advocated by the New London Group, has challenged us to go beyond the print-based texts and focus on multimodal, electronic texts and forms of language. Moreover, an increasing attention to sociocultural theories of learning in educational research has invited us to consider the roles of everyday ICTs in language and literacy development. When seen through a Vygotskian lens, ICTs are cultural tools for today's students, and these tools have great impacts on how they engage in social activities and internalize the use of various tools and artifacts. As a result, there is a global call for ICT integration into school curricula. I have shown in this article how Bangladeshi education sector is prioritizing ICT use in classrooms as well as in teacher development programs. Though very few would doubt the usefulness of new technologies to enhance language and literacy development, I have aligned my argument with those who maintain that "merely introducing ICT into schools will not in itself lead to enhanced learning" (Sutherland, Robertson, & John, 2009, p. 30).

Furthermore, I have argued that teachers need to develop critical consciousness (Freire, 1970, 1973) about technology use in the classroom in order to guard against the reification of transmission models of education that

prepare students as uncritical consumers of isolated bits of information and as obedient workers to run the machine of neoliberal capitalism (Anwaruddin, 2013). As we have seen in the video example of the classroom, the teacher's agency is extremely restricted and she is seen as a mere tool for implementing a top-down, pre-packaged curriculum. Building on Althusser's (1971) notion of interpellation, I have argued that by responding to the call for using technology-integrated curricula, both the teacher and her students have situated themselves in a particular subject position that denies their agency to develop a language of critique and hope (Freire, 1970; Shannon, 1995). The use of technology in the classroom does not seem to free the teacher and the students from repressive pedagogies that have long dominated the educational landscape in Bangladesh (Anwaruddin & Pervin, 2015; Thornton, 2006). Therefore, I have proposed that the principles and spirit of critical pedagogy (Giroux, 1983, 1988, 1992) be incorporated into programs of teachers' learning and professional development. It is my hope that by embracing and engaging in critical pedagogy, teachers will be able to challenge any assumptions about technology-integrated school curriculum as a neutral tool to transmit "objective" knowledge to students.

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**Article Citation**

Anwaruddin, S. M. (2015). *ICTs in language and literacy education in Bangladesh: A critical review*. *Current Issues in Education*, 18(1). Retrieved from <http://cie.asu.edu/ojs/index.php/cieatasu/article/view/1282>

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**Current Issues in Education**

Mary Lou Fulton Teachers College • Arizona State University  
PO Box 37100, Phoenix, AZ 85069, USA

Manuscript received: 08/17/2013  
Revisions received: 06/01/2014  
Accepted: 09/12/2014



## **Current Issues in Education**

Mary Lou Fulton Teachers College • Arizona State University  
PO Box 37100, Phoenix, AZ 85069, USA

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Volume 18, Number 1

March 22, 2015

ISSN 1099-839X

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