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Teaching for the 21st century: A case for dialogic pedagogy

Abstract

In the past two decades, there has been a call for educators around the world to prepare students for the 21st century to help them navigate an increasingly globalized world and inter-connected landscape. This creates a need for educators to equip students with a holistic education that emphasizes life skills like communication, cross-cultural collaboration, and critical thinking. Against this backdrop, this paper examines the viability of ‘dialogic teaching’ as a pedagogy for the 21st century. The paper begins with a discussion of the features of the 21st century education landscape and the principles and tenets of ‘dialogic teaching’. It then surveys and synthesizes the findings of empirical studies in various parts of the world focusing on the role of discourse in fostering dialogic interactions, with a focus on language learning, in order to establish possible links between dialogic teaching and the demands of the 21st century. The paper concludes with a brief discussion of the challenges and implications of adopting a dialogic approach to teaching as a pedagogy for the 21st century.

Key words: 21st-century teaching and learning; dialogic pedagogy; language education

1. Introduction

Although technology and its affordances have come to symbolize and define the 21st century landscape, the focus of this paper is not on technology but pedagogy, a pedagogy that educators might consider to equip and empower their students for the 21st century. For the past few decades, there has been a call for educators around the world to prepare students for the 21st century (American Association of Colleges & Universities, 2007; Conley, 2005 & 2007; Dede, 2010; Drew, 2012; Partnership for 21st Century Skills, 2006; Trilling & Fadel, 2012). This is in response to a perceived need to help students navigate and optimize opportunities and resources available in an increasingly globalized world and inter-connected educational landscape. Proponents of “21st century skills” argue that this creates a need for students to go beyond the learning of content knowledge and examination skills to be equipped with a more holistic education that emphasizes life skills like communication, creativity, cross-cultural collaboration and understandings, and critical thinking. Although philosophers like Socrates and scholars like Dewey have long argued for the importance of skills like critical thinking and creativity, there is now a renewed interest in them because of the globalized and inter-connected landscape of the 21st century. As Silva (2009) puts it, ‘21st-century skills... are not new, just newly important’ (p. 630).

In more recent years, there is also a growing interest in dialogic pedagogy, an approach that seeks to facilitate students’ construction of knowledge through the questioning, interrogation and negotiation of ideas and opinions in an intellectually rigorous, yet mutually respectful, manner (Alexander, 2008; Leftstein & Snell, 2014; Mercer and Littleton, 2007; Reznitskaya, Kuo, Clark, Miller, Jadallah, & Anderson, 2009, *inter alia*). Situated within a social constructivist paradigm that encourages collaborative learning, critical talk and divergent thinking, this dialogic pedagogic approach has found followers in various parts of the world including England, India, Israel, Japan, Mexico, Singapore and the United States of America.

Both 21st century and dialogic teaching seem to share a desire to empower learners by developing competencies that expose and transcend the limits of information and knowledge from traditional authoritative sources, with the locus of power firmly situated at the intersection of communication, collaboration and criticality. This paper therefore seeks to explore this nexus of 21st century learning and dialogic teaching and how a dialogically oriented approach to teaching and learning might prepare learners for the perceived demands of the 21st century.

This paper is divided into three main sections. The first section delineates the 21st century educational landscape by contrasting it with 20th century teaching and learning practices. The second presents the theoretical principles and practical applications of ‘dialogic teaching’ by surveying recent practices in different parts of the world with a focus on the role of classroom discourse as a means to encourage dialogic interactions across various subjects including language education. The final section draws together the features of 21st century learning and dialogic teaching to make a case for the viability of dialogic teaching as a pedagogy for the 21st century. The paper concludes with a discussion of the challenges and implications of dialogic teaching.

2. The 21st century educational landscape

In order to understand what 21st century skills are about, it is perhaps useful to first know what 20th century skills referred to and why they have been superseded by so-called “21st century skills”. Prior to 2000, the emphasis in education was to promote the three R’s: “reading” “writing” and “arithmetic”; today, in the 21st century, it is the new three R’s – “rigor” “relevance” and “real world skills” – that are needed (McCoog, 2008 cited in Smith & Hu, 2013, p. 89). These “real world skills” include communication, collaboration and critical thinking, skills that are deemed crucial for people from different contexts, countries and cultures to interact in a borderless, networked and globalized world. With this increased mobility of peoples, cultures and ideas across geographic boundaries made possible through modern communications and transport technology, there is now a greater need for people to be more open and receptive to cross-cultural and interdisciplinary communication and collaboration. In such a context, it has been argued that it is no longer sufficient to teach students basic literacy or numeracy skills; instead, what has become vital are the higher-order thinking skills that help them to identify, evaluate, create and apply knowledge that are relevant and necessary for them to function in the 21st century workplace (Beers, 2011; Moylan, 2008). In other words, it is no longer sufficient to teach students what to learn; we should also teach them *how* to learn.

Correspondingly, this shifts the focus in teaching from what to teach to *how* to teach. Focus on core content knowledge through an essentially transmissionist mode of teaching in which pre-digested knowledge is unproblematically transmitted from an authoritative source, such as the teacher or textbook, to the student was a key feature of the 20th century classroom (Dede, 2010; Teo, 2015). It is believed that this teacher-centered, textbook-driven approach encouraged passive learning of discrete facts and isolated knowledge. However, this is not to diminish the value of knowledge or trivialize its role in learning, as knowledge is the necessary foundation upon which critical thinking and the other “21st century skills” are built. While we do not want to teach knowledge for knowledge’s sake, neither do we want to teach skills in an intellectual vacuum or knowledge void (Hirsch, 2006; Willingham, 2009). As Lambert & Biddulph (2015) have argued, there needs to be a balance between pedagogic style and curriculum substance. But with the rapid proliferation and dissemination of

knowledge made possible by the advent of computer technology, particularly the Internet, it is the *mere* ownership and mastery of knowledge that is critiqued as being less important than the synthesis, evaluation, application, transformation and, ultimately, creation of new knowledge. Instead of trawling through books tucked among dusty library shelves for a few pieces of information, students now have at their disposal powerful search engines that produce hundreds and even thousands of ‘hits’ based on a single query. However, this Internet-generated information is unfiltered and may therefore be skewed, incomplete, inconsistent, irrelevant and even outright inaccurate. The ability to sift through this massive amount of data to weed out misinformation and disinformation in order to extract valuable information for application and decision-making therefore becomes an important skill. As routine work that is repetitive in nature is being increasingly replaced by computers (Murnane and Levy, 2004), jobs across all sectors of the economy now require the skills to locate and analyze information from multiple sources, platforms and portals (Silva, 2009). Moreover, although collaboration has always been an important interpersonal skill, it takes on added significance in the 21st century for two reasons. First, the nature of work in knowledge-based economies tends to demand that people work together in small teams, comprising people often with different but complementary skills, rather than in isolation in an industrial context (Karoly, 2004). Secondly, due to the advancements in communications technology, collaboration tends to occur not just face-to-face but through mediated interactions with co-workers who may be halfway across the world.

In response to this changing landscape, a set of skills, competencies and dispositions has been identified as imperative for citizens of the 21st century to live, work and function effectively. These can be broadly categorized into three key areas: (1) information and communication skills; (2) civic literacy, global awareness and cross-cultural skills; (3) critical and inventive thinking (Partnership for 21st Century Skills, 2007). With the proliferation of information and the affordances of computer technology in the 21st century, there is not only a need to hone one’s information retrieval skills across an ever-expanding cyberspace but also one’s communication skills across cultures and contexts that would seem inaccessible and inscrutable a few decades ago. This entails an awareness of, and sensitivity to, cross-cultural differences and conventions, as well as the ability to critically evaluate existing information, knowledge and ideas in order to construct new ones. This demands cultivating in learners competencies, dispositions, perspectives and, crucially, values through a pedagogic approach that can help them navigate and thrive in the 21st century landscape. In response to this demand, various organizations, associations and agencies around the world have articulated their vision of systematically developing these competences among learners. Besides the *Partnership for 21st Century Skills*, formed between the US government and major multinational corporations, such as Apple Computer and Microsoft Corporation, others include *Assessment and Teaching of 21st Century Skills* (ATCS) (Binkley et al., 2010), *21st century skills and competences for new millennium learners* (OECD, 2005) by the Organization for Economic Co-operation and Development, and *Key competences for lifelong learning* by the European Union (Commission for the European Communities, 2008) (see Voogt & Parella-Roblin, 2012 for a review of these frameworks). The education departments in some nations have also developed their own frameworks of ‘21st century competencies’ to address local needs (see, for instance, MOE Netherlands; MOE Singapore).

While these frameworks provide a general roadmap to guide policy-makers, curriculum designers and educators, the implementation and enactment of these policies depend to a great extent on the commitment and skills of the classroom teacher. According to Dede (2010), a skilled teacher in the 21st century needs to be ‘an expert in complex

communication, able to improvise answers and facilitate dialogue in the unpredictable, chaotic flow of classroom discussion' (p. 53). A pedagogic approach that may fulfill this need is 'dialogic teaching'.

3. Dialogic teaching

3.1 *Theoretical perspectives*

Dialogic teaching is an approach that seeks to encourage students to question ideas and opinions from their peers, teachers or textbooks to produce greater negotiation and construction of knowledge (Alexander, 2008). It is an approach to teaching inspired by Bakhtin's (1981) notion of dialogism and grounded in Vygotsky's (1978) sociocultural theory of learning.

Bakhtin (1981) argues that human consciousness is by nature dialogic and it is through interactional activities that this consciousness will become internalized. By demonstrating how the voices of other people get interwoven into what we say, write and think, he theorizes that thinking and knowing occur in and through dialogic speech which acts as an interface between a speaker and a real or imagined audience, without which one's utterances would not make sense. In so doing, Bakhtin has provided an epistemological stance and perspective that highlights meaning (and learning) as necessarily arising from the interactive act of drawing from and rearticulating the thoughts and languages of others (Teo, 2016). It effectively decentres learning from the cognitive processing that takes place in an individual learner to the social interaction in which learners participate (Koschmann, 1999). The contrast between monologic and dialogic utterances within a classroom setting is that the former involve students' passive acceptance of the fixity of meanings expressed through 'authoritative' texts and talk, while the latter involve students' resistance and reshaping of these meanings by populating them with their own accents, and appropriating them by adapting them to their own meanings and intentions (Bakhtin, 1981). The Bakhtinian perspective of dialogic classroom talk is therefore one that is characterized by the teacher and students working together to co-construct meaning by critically questioning and filtering ideas through their own knowledge, perspectives, and lived experiences. Put simply, the educative power of dialogic teaching lies in teaching students not what to think but *how* to think (Reznitskaya et al., 2009, p. 35, my emphasis).

Vygotsky (1978) postulates that learning is necessarily a social act, and not merely a cognitive process, achieved through active interaction in a social setting. In Vygotsky's own words, '[t]he social dimension of consciousness is primary... [while the] individual dimension of consciousness is derivative and secondary' (1979, p. 30). In contrast with teacher-directed frontal teaching that succeeds in transmitting factual knowledge but fails to foster higher-order thinking skills such as reasoning and problem-solving (Peterson & Walberg, 1979), socio-cultural perspectives of learning emphasize that learners acquire new strategies and knowledge of the world and culture as they participate in a broad range of joint activities. According to Vygotsky, this learning crucially takes place as and when learners interact with their peers. This is because "[l]earning awakens a variety of internal developmental processes that are able to operate only when the child is interacting with people in his environment and with his peers" (Vygotsky, 1978, p. 90). Knowing and learning are therefore constructed in and through social interaction, which is in turn shaped by the sociocultural environment in which it takes place. In a comprehensive review of sociocultural perspectives of learning, Palinscar (1998, p. 11) observes that educational

reforms that encourage learners to explain their ideas to one another, discuss disagreements, and cooperate in the solution of complex problems, while teachers participate in the design of these contexts and the facilitation of this kind of activity, have propelled interest in social constructivist notions of learning.

Despite arising from different traditions, Bakhtin's literary and Vygotsky's psychological theorizations on meaning making and learning converge at several critical points. Both locate learning in and through interaction, where learners engage with one another to solve a common problem, debate an issue, or evaluate the merits and demerits of a suggestion, thereby moving away from construing learning as a solitary cognitive activity to one that is necessarily predicated on, and constructed through, human interaction. In this regard, both can be seen as contributing to the 'sociocultural turn' in (second) language education (Johnson, 2006, p. 236). More importantly, both recognize the value of active engagement and negotiation rather than passive acceptance, assimilation and, ultimately, acquiescence to a 'higher' authority, whether this takes the form of a teacher, a 'smarter' classmate, a textbook or conventional wisdom. In order for cognitive development and learning to take place, there must be an active grappling and wrestling with new, different and unfamiliar ideas in relation to ideas that are already familiar, accepted and internalized as knowledge or even wisdom. This grappling and wrestling, manifest through earnest probing, questioning and challenging, may or may not lead to agreement or even conciliation, but should broaden and deepen one's views and lead to an honest reevaluation of one's idea or position in relation to those of others. In this way, knowledge is co-constructed, understandings recalibrated, and learning deepened. According to Wegerif (2007) (cited in Bakker, Smit, & Wegerif, 2015), this is also the seed of creativity: To learn to be creative is to learn how to 'step back' from fixed identity commitments and 'cognitive schemas' and allow new voices and ways of seeing to emerge.

3.2 *Pedagogical applications*

In the last two decades or so, there have been a strong and growing interest in, and concomitant proliferation of, classroom applicative work related to dialogic pedagogies (Applebee, Langer, Nystrand, and Gamaron, 2003; Howe & Abedin, 2013; Higham, Brindley & van der Pol, 2014; Lefstein & Snell, 2014; Mercer and Littleton, 2007; Murphy et al., 2018; Reznitskaya & Gregory, 2013; Wegerif, 2007; White, 2015, inter alia). One seminal body of empirical research emerging from the cross-cultural analysis of primary school classrooms in various countries including England, Russia and India is Alexander (2001). His study produced a 'dialogic teaching' framework based on the principles of collective participation, reciprocal sharing of ideas, engendering a supportive learning environment, and cumulative building of knowledge and understanding, and focused, purposeful learning (Alexander, 2008). Crucially, Alexander's framework forces educators to rethink not just the strategies and approaches a teacher can use to encourage dialogic engagement, but also the classroom relationships fostered through dialogic interactions, the balance of power between teacher and students, and the way knowledge is being conceived, all of which hark back to Bakhtin's notion of dialogism which is premised on the principle of egalitarianism.

A more recent dialogically oriented project is known as *CamTalk*. Hosted by the Faculty of Education at Cambridge University, the project began by exploring the impact of introducing dialogic strategies in secondary schools within the U.K., but has now expanded to become an international endeavour involving researchers from various countries including, Australia, Canada, China, India, Mexico, Norway, and South Africa. Collectively, they

embrace and attempt to enact dialogic principles such as the belief that knowledge is not fixed, as it means different things to different people in different places at different times. This means that rich and new meanings and understandings can be produced through an interaction of these different perspectives from different people. They also believe that students can become more engaged in learning in an environment in which these differences are not only accepted but celebrated and actively pursued. One significant outcome of *CamTalk* is a comprehensive framework for coding classroom dialogue across a range of educational settings, which has been tested in the U.K and Mexico (see Hennessey et al, 2016). Known as Scheme for Educational Dialogue Analysis (SEDA), the coding scheme has 33 items clustered around eight dialogic categories that are based on Alexander (2008)'s dialogic principles. Such work clearly signals the importance and value given to classroom talk in promoting thinking and learning.

Another area of work that focuses on the educative potential of classroom discourse is *Accountable Talk* (Michaels, O'Connor, & Resnick, 2008). Although not explicitly linked to Bakhtinian theories of dialogism, the genesis and growth of this framework for developing academically productive classroom talk has its roots in Vygotskian principles of social constructivism. *Accountable Talk* is built around three inter-connected dimensions of accountability to: (1) the learning community, (2) accepted standards of reasoning and (3) knowledge. Accountability to the learning community means that students should be socialized into the norm of 'respectful and grounded discussion' rather than 'noisy assertion or uncritical acceptance of the voice of authority' (Michaels, O'Connor, & Resnick, 2008, p. 286). This kind of accountable talk is realized through students listening carefully to their peers when they speak and asking questions in order to clarify or expand what they say, so as to build on one another's contributions. Accountability to accepted standards of reasoning refers to the efforts in making logical connections and drawing reasonable conclusions, while accountability to knowledge is manifest in talk that is based explicitly on facts or published, or publicly accessible, information. Students would make efforts to get their facts right and make the evidence behind their claims and arguments transparent, as much as they would challenge one another when such evidence is lacking. As the discerning reader would realize, this model of promoting an ideal classroom culture and discourse community premised on rigorous academic learning closely parallels the kind of deep thinking and learning that supposedly springs from dialogic pedagogies. Interestingly, the notion of accountability that underpins all three dimensions of *Accountable Talk* can also be linked to Bakhtin's (1993) concept of 'answerability', which construes dialogic engagement among interlocutors not as an ideal vision but an ethical responsibility.

Empirical studies designed to test principles and concepts related to dialogic teaching in order to enhance teaching and learning in the classroom have also been numerous and varied. A search in the *Web of Science* database using the search words "dialogic teaching/pedagogy" in the title yields over 30 empirical studies published in the last five years (from 2015) alone. A significant number of these focused on science education, such as Bansal (2018), Kilinc, Demiral, & Kartal (2017), Kumpulainen, & Rajala (2018) and Reynaga-Pena, et al (2018). The focus in some of these studies is on using dialogue as a means to scaffold learning. A case in point is Bansal (2018) who developed a typology of teacher discursive moves based on the dialogic teaching goals of foundation setting, initiation to dialogue, and perpetuation or maintenance of dialogue in the context of India. Subsumed within each of these broad goals are specific teacher moves that seek to, for instance, elicit experiences, generate ideas, ask for justifications and predictions, and invite reflection and position-taking. Apart from science, mathematics, language arts and geography education

also appear to have attracted keen interest among researchers in recent years (for example, Bakker, Smit, & Wegerif, 2015; Cook, Warwick, Vrikki, Major, & Wegerif, 2019; Jones & Chen 2016; Ruthven, et al, 2017). One such study examined what the researchers termed ‘delayed scaffolding’ as a means to encourage students to reflect on their mistakes and to sharpen their reasoning in a high school mathematics class in Indonesia (Widjajanti et al, 2018). An earlier study reported by Mercer and Sams (2006), as part of a larger intervention project known as *Thinking Together*, also focused on how language could be used to develop mathematical reasoning, understanding and problem solving. Although their focus was on primary school children building capacity for a collaborative style of reasoning known as ‘exploratory talk’ (following Barnes & Todd, 1995), Mercer and Sams (2006) argued that teachers played a crucial role in modeling and making explicit the language of reasoning, such as the use of ‘why’ questions and ‘reasoning words’ such as ‘because’, ‘if’ and ‘so’ (p. 516). Their findings suggest that mathematics teachers can enable learners in small group settings to use talk more effectively as a tool for reasoning.

3.3 *Dialogic teaching and language learning*

Besides being recognized and harnessed as a resource for developing student thinking and reasoning in content subjects like science and mathematics, classroom discourse has also been identified as a *source* of learning especially for literacy and language related school subjects (see, for instance, Wilkinson et al, 2017; van der Heide, Juzwik, & Dunn, 2016). This is unsurprising as language is not only the medium by which teaching takes place, it is also the means by which learners ‘demonstrate to teachers much of what they have learned’ (Cazden, 2001, p. 2). In using language to display their thinking and demonstrate their learning, learners inevitably also sharpen their linguistic skills to articulate, elaborate, explain, synthesize, justify and revise. From a social constructivist perspective, discourse is the primary symbolic, mediational tool for cognitive development. This echoes Bakhtin (1981): ‘[A]s a living, socio-ideological thing, language for the individual consciousness lies on the borderline between oneself and the other’ (p. 293). In other words, language mediates between one’s consciousness and otherness. But for discourse to be an effective context for learning, it must be communicative. This is what Vygotsky has also argued about language not being just ‘a medium for articulating ideas but an essential mechanism for forging new ways of thinking and knowing’ (Vygotsky, 1968, cited in Teo, 2016, p. 48).

In an early study comparing three approaches to the teaching of writing, Needles & Knapp (1994) concluded that neither the skills-based approach (characterized by systematic exposure and mastery of discrete skills, such as spelling and sentence structure) nor the whole language approach (which advocates that language is best learned in the context of use) was effective. What was more effective was a third approach based on the following principles: (a) component skills are best learned in the context of the writing task, (b) the quality of writing increases when children are writing what is meaningful and authentic, (c) fluency and competence are influenced by the extent to which the task connects with the child’s background and experience, (d) involvement increases when children are encouraged to interact while performing writing tasks, (e) children develop competence if they approach the task as a problem solving process, and (f) children need ample opportunities to write extended text. This third approach works because it explicitly advocates learning through purposeful interaction in an authentic, meaningful task. This not only reflects a social constructivist perspective of language learning, but also speaks to the value of dialogic teaching and learning practices, which explicitly encourage this type of interaction among learners.

Research focusing on literacy and language learning and drawing on dialogic teaching principles leverage on the strong focus on language as a tool for thinking to help learners not only to think more deeply and critically but also to sharpen their use of language to communicate. For instance, Rojas-Drummond et al. (2017)'s experimental study focused on the interplay between dialogic talk and a reading-cum-writing task among Mexican primary school children. The experimental group participated in a *Learning Together* programme aimed at equipping them with the strategies to work collaboratively to comprehend and produce texts, while the control group engaged in normal class routines. As the initial reading task involved texts of different genres, the children had to discuss with one another in small groups to understand the different linguistic registers used in the texts in order to extract and synthesize relevant meanings to form a coherent summary. Their study showed that children in the experimental group were able to select important content meaning and synthesize it by generalizing the 'register' of the source texts and integrating this to construct a coherent summary. In making intertextual links between talking, reading and writing explicit, Rojas-Drummond et al.'s 'dialogic literacy' task provided ample opportunities for the children to talk among themselves to co-construct meaning through reading and writing.

Another study that examined the reading of 'complex texts' by young learners is Murphy et al. (2018). The study was based on a year-long *Quality Talk* (QT) program designed to increase learners' high-level comprehension by encouraging learners to think and talk about, around, and with texts (p. 1120), which is explicitly aligned to the Common Core State Standards (Common Core State Standards Initiative, 2010). According to the QT website housed at the Pennsylvania State University in America:

Quality talk is an approach to conducting discussions that promotes students' high-level comprehension of text, where high-level comprehension refers to critical-reflective thinking and epistemic cognition about and around text. The approach is premised on the belief that talk is a tool for thinking, and that certain kinds of talk can contribute to high-level comprehension.

The approach consists of various components, including setting up an instructional frame and introducing various discourse elements. Some of these discourse elements included asking 'authentic questions' (in which the person asking genuinely does not know the answer and is interested in knowing how others would answer), 'uptake questions' (when a person asks a question about something that someone else previously said), and 'affective questions' (that elicit information about students' feelings or about their personal experiences in relation to the content they are discussing). As in Rojas-Drummond et al. (2017), teachers in Murphy et al.'s (2018) study had to first model and scaffold what was expected of students during the early stages of student group discussions before gradually releasing the responsibility of engaging in *Quality Talk* to the learners. According to the authors, through this process of ceding interpretive control of discussion to the learners, the latter gained the freedom and confidence to articulate their thoughts in the face of different points of view in the course of interacting with others. This in turn encouraged them to re-examine their own ideas in light of new ones, as well as to seek more information in order to reconcile conflicts, thereby leading to higher levels of reasoning and understanding (ibid, p. 1148).

Another recent study (Teo, 2016) that focused on classroom dialogue was conducted on a language-related subject (General Paper) aimed at developing critical thinking and communication skills among pre-university students in Singapore. Using a coding scheme

focused on the initiation and follow-up moves made by teachers in seven different schools, Teo (2016)'s baseline study found that the vast majority of teachers displayed a monologic stance through the use of questions and comments that constricted, rather than expanded, the dialogic space in the classrooms. For instance, teachers were seen using 'display questions' that elicited predetermined knowledge from students more often than 'exploratory questions' that elicited students' opinions, ideas or suggestions. The teachers also seldom asked students to justify their views and merely acknowledged their contributions most of the time. Based on these findings, Teo concluded that if students' critical thinking and communication skills are to be honed, General Paper teachers would need to adopt a more dialogic approach in which students are encouraged to explore ideas critically and construct their own understandings in a collaborative manner, instead of viewing knowledge as something fixed and static to be assimilated and reproduced.

Dialogic pedagogies are not only being applied to language classrooms in English-speaking countries, but are also being implemented in countries where English is a second or even foreign language. This is unsurprising since Bakhtin's ideas of dialogism and situated learning and their applicability to second language learning have been acknowledged for some time (see, for instance, Hall, 2002; Johnson, 2004). With reference to Bakhtin's theory of dialogism, Toohey (2000) describes language learning as a process in which learners 'try on other people's utterances' and 'take words from other people's mouths', thereby appropriating these utterances before gradually making them 'serve their needs and relay their meanings' (p. 13). Even in these contexts where students tend to be more inhibited to speak up and therefore remain largely reticent in class, researchers have argued that adopting a carefully scaffolded strategy to promote dialogicity among students is important. Working in the context of Japan, Shea (2018) argues that the productive ability to present extended explanation is precisely what learners of English especially in Japan and other Asian countries need as they have been used to 'overwhelmingly receptive, teacher-centered classrooms, struggling with culturally situated reluctance to express opinions in front of classmates' (p. 3). What is important, however, is that teachers in these EFL classrooms assume a more assertive or authoritative role in encouraging students to speak in an extended manner because of their lack of confidence and perception of their poor language abilities. In this regard, an important principle for teachers in EFL contexts to bear in mind is to be authoritative without being authoritarian. This means that teachers should take the lead and leverage on their role as an authority figure in the classroom to initiate, encourage and sustain student talk, instead of misusing this power by imposing their views on the students or eliciting predetermined answers from students through 'display questions', which would only reinforce students' sense of inferiority while further strengthening the teacher's position of power.

These dialogically oriented studies on language learning dovetail in their focus on the use of language, which is initially modeled and scaffolded by a teacher to be habituated by learners over time to hone their reasoning and thinking skills. However, Palinscar (1998) cautions that the benefits to be reaped from an approach to teaching and learning depend upon the types of talk produced. Talk that is interpretive (generated in the service of analysis or explanations) is associated with more significant learning gains than talk that is simply descriptive. To generate the right kind of productive talk among learners, teachers play a critical role in 'mediating classroom discourse by seeding the conversation with new ideas or alternatives to be considered that push the students' thinking' and also in attending to the structure of group activity 'so that responsibility is shared, expertise is distributed, and there is an ethos for building preceding ideas' (Palinscar, 1998, p. 21).

In summing up what research on dialogic pedagogies over the last two decades has found, Haneda (2016, p. 1) observes that '[a] substantial body of research on classroom interaction has shown the significance of dialogic classroom talk in fostering students' *linguistic* and *cognitive* development, mastery of content and engagement in learning' [my emphasis]. While the primary goal of dialogic pedagogies is unmistakably cognitive in nature, the linguistic developments in learners as they talk to think are also palpable, as evidenced for instance in Rojas-Drummond et al. (2017). Because dialogic pedagogies emphasize authenticity in interaction, they not only promote authentic language use by encouraging students to ask authentic questions of one another or proffer viewpoints they subscribe to (instead of answering teachers' questions on topics they may not have a vested interest in). They also hone students' language skills as they learn to paraphrase ideas to show their understanding and are encouraged to speak in a more substantive manner as they give reasons, offer evidence, defend their position, or elaborate on how their ideas are connected to what other students or the teacher have said. Through the scaffolding and modeling provided by teachers, students also learn to use specific discourse structures or elements (such as those highlighted in Murphy et al, 2018) that help them to attend to and scrutinize what others say, thereby negotiating and building knowledge collaboratively. The increased levels of engagement and participation also mean that students are actively practising the use of language as they think and learn together.

4. Dialogic teaching as a 21st-century pedagogy

Beyond improving engagement and participation, dialogic teaching ultimately improves students' ability to think and decide for themselves, which is critical in the 21st century where the widespread proliferation of information and knowledge means that there is an ever increasing need for learners to sift through layers of (mis/dis)information in order to uncover what is of value and relevance. This is the kind of criticality that constitutes the cornerstone of many 21st century pedagogies. Researchers behind the *Quality Talk* project, for instance, emphasize that learners in the new millennia face complex, multi-faceted texts that require a 'high-level comprehension' that maximizes critical-analytic thinking and reasoning skills, which are precisely the kinds of skills dialogically oriented pedagogies seek to cultivate in learners.

More importantly, dialogic teaching emphasizes the need to collaborate by actively listening to one another, by contributing to ideas and viewpoints through scrutinizing and questioning the basis of arguments in terms of reasons and evidence, and by building upon one another's ideas and inputs. When learners as novices come together in a collaborative posture, each member 'contributes something to, and takes something away from, the interaction', thereby learning from one another (Lantolf and Pavlenko, 1995, p. 116). This mutual giving and taking facilitates the layering and building of ideas and enacts the co-construction of knowledge. This goes beyond effective communication to effective collaboration, which is arguably more crucial than criticality in view of the multiple platforms, modalities and hence opportunities for people to interact, confront and potentially clash with one another in the 21st century landscape. Knowing how to clearly articulate and cogently substantiate one's perspective is one thing; knowing how to listen to, and appreciate the value of, other perspectives, especially when they are unaligned or counterposed to ours, is another. Beyond openness and receptivity is a willingness and humility to review and, if necessary, revise one's position in light of other perspectives. This is the kind of ethos and

values fostered in and through dialogic teaching and learning practices, which not only engender a sense of mutual respect and accountability but also humility.

However, despite these merits of dialogic pedagogies, there are several obstacles that limit the application of dialogic principles in the classroom. Some of these include crowded classrooms, the privileging of written work over classroom talk in schools, and the inexperience or inadequacy of teachers to facilitate effective dialogic interactions with students (Burbules, 1993; Daniels, 2001; Reznitskaya et al., 2009; Sedova, Salamounova, & Svaricek, 2014). However, one of the biggest obstacles that stand in the way of teachers engendering a more dialogic classroom environment may be the persistent belief in a transmissionist rather than constructivist approach to teaching. Some teachers cling tenaciously to their role as the main proprietor of knowledge, whose perceived responsibility is to impart this knowledge to their students, who are in turn positioned as inert receptacles into which this knowledge is poured. While this is no longer a tenable position for teachers to adopt because of the easy access to information via the Internet that students in the 21st century have, the traditional roles and relationships between teachers and students that have been cultivated and entrenched over many years are resistant to change. Even among teachers who believe in a more constructivist view of teaching and learning, there is a deep-seated sense of insecurity that comes with relinquishing control and ceding ‘authority’ to students, who may begin to question their teacher’s competence. This is the reason why some scholars have issued the call for teachers in the 21st century to adopt a new role as co-inquirers (Matusov, 2009) or even co-learners (van de Pol, Brindley & Higham, 2017). This means that teachers ought to see themselves not so much as the main purveyors of knowledge or skills or mere facilitators of activities for students to learn ‘on their own’, but as co-constructors of knowledge and understanding as they inquire into, investigate and discover ideas *together*. This re-imagining of the teacher’s role in the classroom reconstrues the relationship between teachers and students as one that is based on egalitarianism rather than authoritarianism.

Ultimately, for classroom pedagogies and practices to change, the modes of assessment will need to be (re)aligned to the goals of 21st century teaching and learning. However, as Dede (2010) has noted, current modes of school and national high-stakes assessment do not test students’ ability to transfer or apply knowledge they have learnt, nor do they assess how well they can collaborate with others in problem-solving. Existing models and modes of assessment tend to still treat student knowledge and skills as fixed, discrete and assessable through individualized and standardized pen and paper tests. This is at odds with the dynamic, collaborative, situated and multimodal competencies that students supposedly require to cope with the demands of work and life in the new millennium.

There are, however, some encouraging signs that point to the emergence of new models of assessment that endeavour to assess students’ ability to grapple with, and respond to, real-world problems. One such model is the College Work Readiness Assessment, which grew out of the Collegiate Learning Assessment being used by higher education institutions in America, measures how students perform on constructed response tasks that require an integrated set of critical thinking, analytic reasoning, problem solving, and written communication skills (Silva, 2009, p. 633). Another strand of work that also focuses on the assessment of collaborative problem solving is found in Care, Scoular, & Griffin (2016), which arose out of the Assessment and Teaching of 21st Century Skills initiative underwritten by Cisco, Intel, and Microsoft and supported by the governments of six countries, including Australia, Finland, and the United States. While these endeavours reflect a recognition of the importance of, and commitment to, designing new ways of assessing

students that align more closely to the demands and expectations of the 21st century, it will be some time before these endeavours and efforts begin to produce results that permeate schools and classrooms. For this to happen, a seismic shift is needed not only at the policy-making level but also in the mind-sets of teachers, students, parents and, indeed, society as a whole, so that 21st century education does not merely exist as inanimate frameworks and policy documents, but breathe life in and through the classroom practices and talk among teachers and students.

5. Conclusion

The sort of critical thinking and analytical reasoning that seems to lie at the heart of the teaching and assessment of “21st century skills”, as mentioned in the introduction, is not new, just newly important. Writing over a century ago in a small volume simply entitled, *How we think*, Dewey, like many of the proponents of “21st century skills”, argued against cramming learners with inert facts. Indeed, in the digital age of the 21st century, to feed learners with facts and knowledge that they can easily access is to ‘violate their intellectual integrity by cultivating mental servility’ (Dewey, 1910, p. 198). However, to allow them to ‘surf’ freely in the worldwide web without equipping them with the knowledge, skills and capacity to sift through the dross to uncover what is valuable would be to put them at the mercy of the Baconian ‘idols’ of the marketplace and the theatre (Bacon, 1620/1902). What is crucial and critical, more so than ever before, is to cultivate in learners habits of mental inquiry that consist in acquiring an attitude of scepticism to discriminate beliefs from claims, opinions or mere conjecture and developing an open-mindedness to alternative viewpoints and a predilection for well-grounded conclusions: ‘to maintain the state of doubt and to carry on systematic and protracted inquiry – these are the essentials of thinking’ (Dewey, 1910, p. 14).

In this paper, I have argued the case that dialogic pedagogy, both in its theoretical formulation and practical applications in the classroom, dovetails with these ‘essentials of thinking’ in cultivating a sceptical, but respectful, stance towards ideas and meanings, while actively interacting with these ideas and meanings by probing and filtering them through one’s own knowledge, ideas, beliefs and experiences. In short, to think for oneself, as thinking should and can only be according to Dewey (1910), is what is needed in the 21st century.

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