TEACHING FOR THE TWENTY-FIRST CENTURY

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INTRODUCTION

In recent years, there has been a call for educators around the world to prepare students for the 21st century. This is in response to a need to help students navigate and optimize opportunities and resources available in an increasingly globalized world and inter-connected social landscape. This demands 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. Thus, although technology and its affordances have come to symbolize and define what the 21st century is about, the focus of this paper is not on technology but pedagogy, a pedagogy that teachers can consider to prepare their students for the 21st century landscape.

This paper is divided into two main sections. The first section explores the 21st century educational landscape by contrasting it with 20th century teaching and learning practices. This is followed by a discussion of Singapore's response to the challenges of the 21st century through its framework for 21st century competencies and English Language syllabus with its core features and underpinning principles. This lays the foundation for the second section that introduces the theoretical principles and practical applications of 'dialogic teaching' in different parts of the world, including Singapore. The paper concludes with a discussion of the implications and challenges of dialogic teaching for English language teachers.

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skills are about, it is perhaps useful to first know what 20th century skills referred to and why they have been superseded. Focus on core content knowledge through an essentially transmissionist mode of teaching in which factual 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 (Teo, 2015). This teacher-centered, textbook-driven approach encouraged passive learning of discrete facts and isolated knowledge. But with the rapid proliferation and dissemination of knowledge made possible by the advent of

computer technology, particularly the Internet, the mere ownership or mastery of knowledge has become less important than the synthesis, evaluation, application, transformation and even creation of new knowledge. At the same time, with the increased mobility of peoples, cultures and ideas across geographic boundaries as part of globalization, there is now a greater need for people to be more open and receptive to crosscultural and interdisciplinary communication and collaboration. 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:

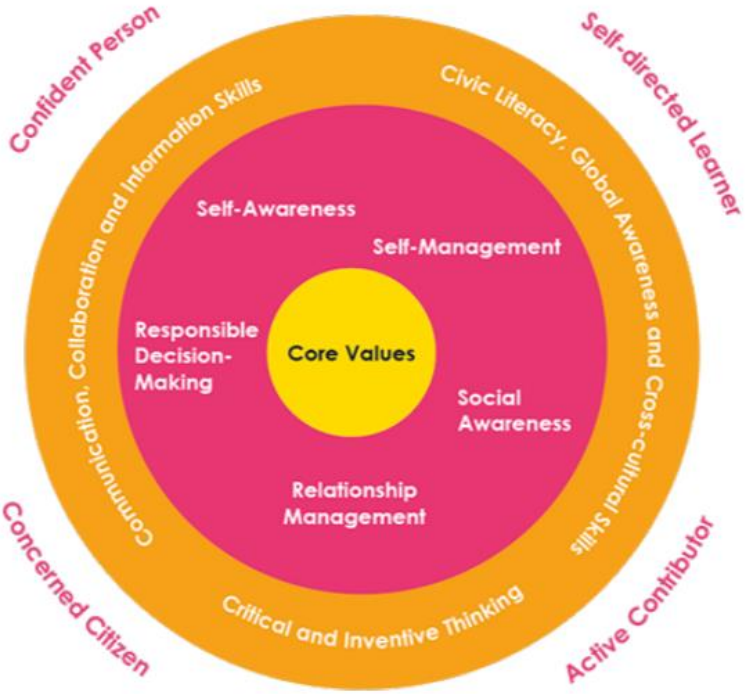
1. Information and communication skills;
2. Civic literacy, global awareness and cross-cultural skills
3. Critical and inventive thinking

Singapore's framework of 21st century competencies

In Singapore, there is due cognizance of the changes and demands of this new educational landscape. The Singapore Ministry of Education (MOE) has developed a "Total Curriculum" with its emphasis on opportunities in curricular as well as co-curricular programs for students to develop soft skills such as communication, inter-cultural and thinking skills. In line with this, the MOE in 2010 implemented a framework to enhance the development of 21st century competencies, which 'underpin the holistic education that our schools provide to better prepare our students to thrive in a fast-changing and highly-connected world' (Ministry of Education website).

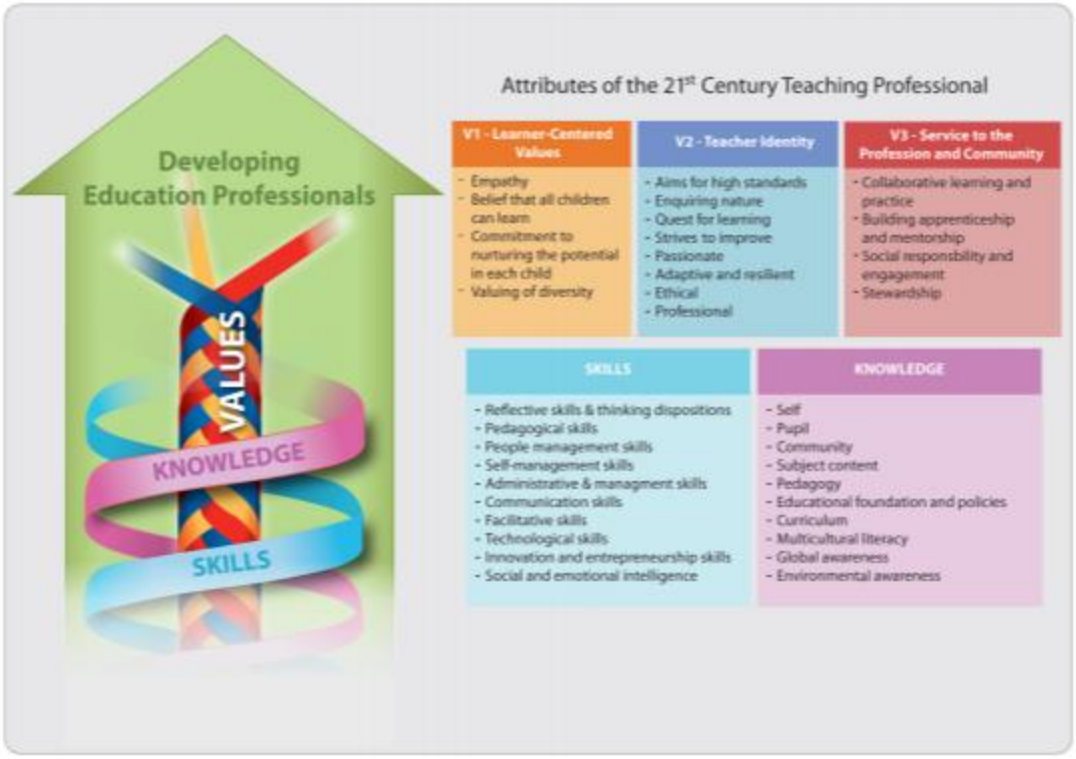
According to this framework represented in Figure 2 below, a set of core values that define a person's character, shape his beliefs and attitudes, and determine his actions must underpin the learning of knowledge and skills. These values include respect, resilience, responsibility and integrity. The middle concentric circle shows the social and emotional competencies, which refer to skills necessary for students to manage their emotions, demonstrate concern for others, make responsible decisions, establish positive relationships, as well as handle challenging situations effectively. Surrounding these core values and social and emotional competencies at the outermost ring are the 21st century competencies of communication, cross-cultural sensitivity and critical thinking, skills aimed at allowing Singapore to plug itself into the globalized world. Collectively, these competencies are meant to help students in Singapore to capitalize on the rich opportunities of the new digital age, while maintaining a strong sense of loyalty to Singapore (Ministry of Education website).

Figure 2. The Singapore MOE Framework of 21st Century Competencies and Desired Outcomes (Source: Ministry of Education website)



With respect to teacher education, the National Institute of Education (NIE), which is the sole teacher education institution in Singapore, has conceptualized a framework known as Teacher Education for the 21st Century (TE21), which seeks to re-direct teacher education away from a transmissionist approach to teaching and learning to focus instead on the cultivation of values, attitudes and dispositions that are conducive to the development of critical thinking, collaborative learning and teamwork, and communication skills (see Figure 2 below). Known as the V3 SK model, it emphasizes values education, such as empathy, commitment, resilience and social responsibility, as the core mission of NIE around which the development of various pedagogic skills and knowledge must revolve.

Figure 2. A Framework for Teacher Education in the 21st Century (Source: TE21: A Teacher Education Model for the 21st Century)

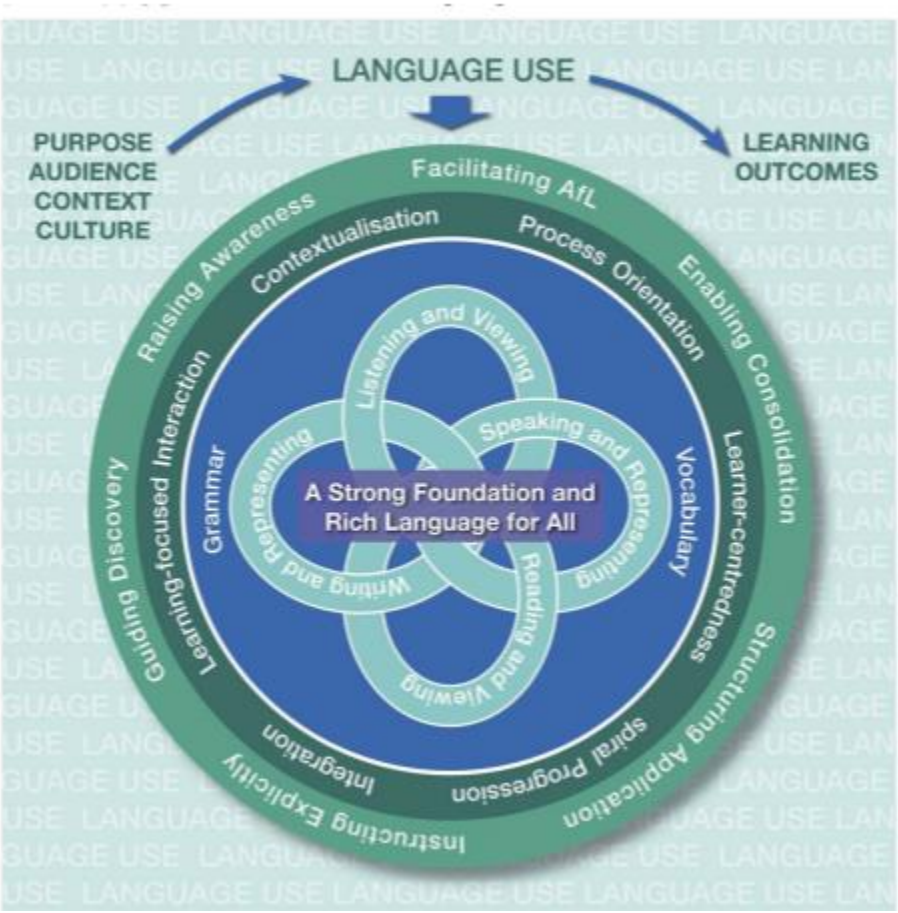


Singapore's English Language Syllabus

In Singapore's emphasis on values, attitudes and dispositions in education, the role of language and language education is critical. Language, in all its multiple modes and multifarious aspects, is arguably the primary means in and through which skills and competencies are not only transmitted but also realized. The position of English in Singapore not only as a subject of study and a medium of instruction in all primary and secondary schools, but also the lingua franca that facilitates interaction and bonding among the different ethnic and cultural groups in Singapore is perhaps unique among Asian countries. This is the result of Singapore's colonial history and post-independence language policies, which combine to produce such a trajectory of language development in Singapore. This coupled with the fact that English is internationally recognized as a global language of the Internet, science and technology, and world trade make English language education in Singapore a critical area that has tremendous social, economic and political implications. Thus, it is not surprising that English education in Singapore has always taken center stage in many policies, reforms and initiatives in Singapore's education system. The official stance and philosophy of English education adopted by the Ministry of Education in Singapore is

encapsulated in the 2010 English Language Syllabus, the key features of which are depicted in Figure 3 below.

Figure 3. Key Features of the 2010 Singapore English Language Syllabus (Source: Singapore English Language Syllabus 2010, p. 13)



The 2010 English Language Syllabus

Underscores language as a means of meaning making and communication and is based on a functional model of language (Halliday and Mathiessen, 1994). It focuses on language use and how it is influenced by audience, purpose, context and culture, which in turn affect the production and consumption of various types of text in society. However, one notable feature of the Syllabus is the recognition that language competency or literacy in the 21st century goes beyond the four traditional language skills of reading, writing, speaking and listening, and necessarily embraces a multimodal construal of communication. According to the Syllabus:

> The EL curriculum will be enriched through the use of a variety of print and non-print resources that provide authentic contexts for incorporating the development of information, media and visual literacy skills in the teaching of

> listening, reading, viewing, speaking, writing, and representing. (English Language Syllabus 2010, p. 9)

Two aspects are noteworthy in the above quote. The first is authenticity, which places emphasis on the use of materials produced and consumed in the real world as opposed to textbook or other instructional materials produced expressly for consumption in the classroom. The second aspect is multimodality, which refers to the various modes through which meaning can be represented and expressed. Besides the use of traditional print texts, films, radio broadcasts, and especially web-based or digital resources like podcasts, vodcasts, digital stories and e-books are also encouraged to expose students to a rich variety of texts, in the broadest possible sense of the word, and to facilitate the development of multiliteracies in students. So, apart from the teaching of traditional language skills like reading, writing, listening and speaking, together with grammar and vocabulary, the Syllabus also highlights the need to teach students how to view both static and moving images and how to express meaning through such modes of representation. This is a reflection of the cyber-world of video games, mobile phone applications and social media that young people in Singapore and many parts of the increasingly technology-mediated and internet-connected world inhabit. Ironically, it is this virtual world that represents the 'real world' which youths participate in, and identify with, outside of the classroom. At the same time, it is also a reflection of what living in the 21st century entails: an understanding of how such modes of meaning-making and expression interpenetrate with more traditional modes and thereby becoming an integral and inseparable part of the 21st century communication toolkit. The teaching of these six skills – reading, writing, listening, speaking, viewing and representing – must therefore also highlight their intertwined and interactive nature. This is reflected in the diagram by the interlocking rings, which are anchored by a strong foundation in the language and exposure to a wide variety of authentic texts that highlight the richness of the language in use. The outer concentric circles represent the various principles and processes of English Language teaching and learning that underpin the Syllabus.

Aside from curricular innovations, the MOE is also cognizant of the crucial role played by tests and examinations. In many countries, teaching is dependent on and even driven by testing, and Singapore is no exception. Hence, for these changes in the Syllabus to take root and become part of the classroom culture in Singapore, the way students' performance in high-stakes tests and examinations is measured must give commensurate reward to the display and demonstration of

these skills and competencies. One feature of the 2010 Syllabus that focuses on this aspect is assessment for learning (AfL) as opposed to assessment of learning. This represents a movement away from a heavy weighting placed on summative testing, which focuses on the product of learning, to focus more on learning as a process which necessarily reconstrues and reorients assessment tasks towards developing, rather than merely evaluating, students' learning.

In addition, the MOE in Singapore is also exploring pedagogic innovations that would complement these curricular and assessment reforms and reinforce the importance of the 21st century competencies that are vital to the quality of the students' future work and life experiences. One such pedagogic approach is dialogic teaching.

Dialogic teaching

Theoretical principles

Dialogic teaching refers to 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 the work of Bakhtin (1981) and his notion of dialogism. By demonstrating how the voices of other people get interwoven into what we say, write and think, Bakhtin 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. It effectively decenters 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, Kuo, Clark, Miller, Jadallah, & Anderson, 2009, p. 35, my emphasis).

The pedagogic potential of Bakhtin's concept of dialogism has been recognized by many other educational researchers across different disciplines (see for instance, Maclean, 1994; Reznitskaya & Gregory, 2013; Tappan & Mikel Brown, 1996; Wertsch & Bustamante Smolka, 1994). One significant 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 principles, such as collective participation, reciprocal sharing of ideas, engendering a supportive learning environment, and cumulative building of knowledge and understanding (Alexander, 2008). Crucially, Alexander's approach forces us to rethink not just the strategies and approaches we use to encourage dialogic engagement, but also the classroom relationships we foster, the balance of power between teacher and students, and the way we conceive of knowledge, all of which relate back to Bakhtin's notion of dialogism which is premised on the principle of egalitarianism.

Practical applications

In the last two decades or so, there have been a growing interest in, and concomitant proliferation of, classroom applicative work related to dialogic pedagogies (Applebee et al., 2003; Howe & Abedin, 2013; Higham et al., 2014; Lefstein & Snell, 2014; Mercer and Littleton, 2007; Murphy et al., 2018; Wegerif, 2007; White, 2015, inter alia).

One such work is known as 'Quality Talk' based at Pennsylvania State University, U.S.A.. According to its website,

> 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. (Quality Talk website)

In order to promote this 'Quality Talk' among learners, the advocates of 'Quality Talk' highlight the importance of setting up classroom participation structures in which teachers have control over topic and text but students have interpretive authority and control of turns. Key to this is that students must adopt the position that knowledge is to be constructed and negotiated, rather than assimilated or possessed. Besides this instructional frame, teachers also need to emphasize

certain discourse elements that foster critical-analytic thinking, such as questions to elicit links to other texts or experiences (affective questions) and questions based on what someone else said previously (uptake questions) (see Murphy et al, 2018 for a list of these discourse elements). Above all, teachers need to support learners through modelling and scaffolding especially during the early stages of student group discussions.

Another dialogically oriented project known as 'CamTalk' is hosted by the Faculty of Education at Cambridge University, U.K.. The project, which counts Robin Alexander and Neil Mercer as its former members, began by exploring the impact of introducing dialogic strategies in secondary schools within the U.K., but has now expanded to become an international project involving researchers from various countries including Norway, Canada, India, China, South Africa and Australia (CamTalk website). 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 also celebrated and actively pursued. Beyond improving engagement and participation, dialogic teaching ultimately improves students' ability to think for themselves, which is critical in the 21st century where all sorts of information and knowledge are readily available at the students' fingertips.

Dialogic pedagogies are not only being applied to classrooms in English-speaking countries like U.S.A. and the U.K., but are also being implemented in countries where English is a second or even foreign language. For instance, 'Accountable Talk' is listed as a cognitive-constructivist approach to teaching and learning in the website of the Faculty of Education at the University of Hong Kong. The university adopts an approach to teaching, based on the work of Michaels, O'Connor and Resnick (2007), that emphasizes students' accountability to the learning community, accurate knowledge, and rigorous thinking. This means that students are encouraged to listen attentively to one another in class so that they can build on one another's ideas and thoughts, to provide views that are grounded in factual, verifiable knowledge and evidence, and to challenge and actively scrutinize the basis of one another's views and claims.

In Singapore, research on dialogic teaching is also starting to gain traction and the attention of educational researchers, curriculum designers and policy makers. Teo (2016) undertook a

baseline study to investigate the dialogic quality of teacher talk at the preuniversity level. Using a coding scheme focused on the initiation and follow-up moves made by 18 General Paper1 teachers in seven different schools, he 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 1 This is a subject taken by almost all pre-university students in Singapore aimed at developing critical thinking and communication skills. were seen using 'display questions' that elicited predetermined knowledge from students more often than 'exploratory questions' that elicited students' opinions, ideas or suggestions. They also seldom asked students to justify their views and merely acknowledged their contributions most of the time. If students' critical thinking and communication skills are to be honed, 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, would need to be adopted.

Implications of dialogic teaching for language learners

Although the primary aim of dialogic teaching is to develop students' critical thinking abilities, the medium through which these abilities can be achieved and demonstrated is language. It has been said that 'language is the medium by which much teaching takes place, and in which students demonstrate to teachers much of what they have learned' (Cazden, 2001, p. 2). This echoes what Vygotsky has 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).

Dialogic teaching not only promotes 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). Students' language skills are also being honed as they paraphrase ideas to show their understanding and are encouraged to speak in a more substantive manner as they give reasons, offer evidence, and 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 certain discourse structures or elements that help them to scrutinize and thereby negotiate and build knowledge collaboratively. The increased levels of engagement and participation also mean that students are practicing the use of language as they think and learn together. In summing up what research on dialogic pedagogies over the last two decades has found, Haneda 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' (Haneda, 2016, p. 1).

Even in EFL 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. Shea (2018), for instance, 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 abusing 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.

Challenges of dialogic teaching

One of the biggest obstacles that stand in the way of teachers engendering a more dialogic classroom environment is the belief among many in the 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. 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 re-imagining of the teacher's role in the classroom will reconstrue 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, such as the 21st century competencies framework articulated by Singapore's MOE. Existing models and modes of assessment tend to still treat student knowledge and skills as fixed, discrete and assessable through individualised 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. This will entail a seismic shift not only at the policy-making level but also in the mind-set 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.

In conclusion, a quote from Erica McWilliam, former professor of education at Australia's Queensland University of Technology seems apt: Teachers in the new millennium can no longer be 'the sage on the stage' or even 'guide by the side', but need to be 'meddler[s] in the middle' (McWilliam, 2009, p. 287-291), prodding and probing students to question, to envision alternative perspectives and, ultimately, to think critically about the knowledge that surrounds them. This is the challenge that confronts teachers who desire to teach for the 21st century.

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