

Challenges Faced by Thai Tertiary Teachers in Designing and Delivering English Courses in the 21st Century

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Abstract:

This study reports preliminary findings from an ongoing investigation which aims to identify the challenges Thai university teachers face in designing and delivering foundation English courses. It also aims to explore Thai teachers' perceptions of the concept of 21st century skills: (1) how they perceive their readiness as teachers of the 21st century and (2) how they assess their capabilities to incorporate 21st century competencies into classroom materials and activities. The study involves 21 Thai and foreign teachers with different amounts of teaching experience who are teaching a Foundation English course for non-English majors at a Thai university in Bangkok. A mixed-method approach, which includes online questionnaire surveys and focus groups, is used to collect the data. Findings from this study have already found that there are some groups of teachers who are willing to adapt and change themselves to be part of the globalized world. The research data shows that the teachers understand the concept of 21st century skills, that they are capable of incorporating 21st century competencies into the classroom, and these have been reflected in what and how the teachers teach in their real practice. It is hoped that the findings of this study would encourage other teachers in the Thai tertiary context to see the possibility of embedding 21st century skills in the English language classroom as well as methods for designing Foundation English courses for Thai university students who are non-English majors.

Keywords: 21st century skills, English language teaching, foundation English, non-English majors

1. Introduction

Since the beginning of this century, academia has been warned to get ready to embrace an incoming concept of learning skills for the 21st century and to make the concept real in the classroom. The 21st century skills are a set of competencies not only important for education, but also for work and other life aspects (Casner-Lotto & Barrington, 2006). The demand for a new workforce equipped with 21st skills such as critical thinking, communication, and collaboration has been rising over the past four decades (National Research Council, 2012). As mentioned by Vibulphol, Loima, Areesophonpichet, & Rukspollmuang (2015), standards for education in the 21st century around the globe are now higher than they have ever been (p.1).

To face the challenges of the 21st century, there have been increasing concerns that Thai society urgently needs future citizens who have greater knowledge and skills to effectively participate and survive in this globalized era. Unfortunately, based on low global academic ranking, Thai students have not only performed poorly in core subjects such as English, science, and mathematics, as pointed out by Wittayasin (2017, p.32-33), but they are also ‘studying the wrong disciplines in relation to the shifting demands of the rapidly evolving economy’ (Cooke, 2018, p.1). Therefore, previous studies in the Thai context (e.g., Bamrungsin, 2017; Zuber & Lynch, 2017; Soparat, Rochanasmita & Klaysom, 2015; and Pheeraphan, 2013) have emphasized the need for new generations of Thais to develop the key competencies of 21st century skills to be ready for the change of global competition and workplace in this new era. With reference to these, it seems to be the primary job of teachers to equip their students with the skills they need to achieve those aims (Bialik et al., 2015).

2. Review of Literature

2.1 Thai Education 4.0: Education towards Thailand 4.0 Policy

Changes in Thailand’s economic model can be divided into three eras from Thailand 1.0, in which agriculture played an important role, to Thailand 3.0, the current economic model focusing on heavy industry and exports. Thailand 4.0, launched in 2016, is the government’s new economic policy to serve the government’s new 20-year National Strategy (2017-2036). Three objectives which have been set for Thailand 4.0 are (1) to bring Thailand to the status

of ‘a high-income nation’ with an emphasis on ‘research and development, science and technology, creative thinking, and innovation’ (Puncreobutr, 2017, p.93-94); (2) ‘to reduce inequality’ (Wittayasin, 2017, p.31); and (3) ‘to promote environmentally sustainable growth and development’ (Wittayasin, 2017, p.31). According to Puncreobutr (2017), the 4.0 policy aims at developing Thais with ‘analytical thinking, innovative, flexibility’ as well as an ability to ‘create or innovate value for products and services, with sustainable development goals in all dimensions’ (p.93-94). However, as pointed out by Wittayasin (2017), the transition from 1.0 to 3.0 was ‘smooth’ and didn’t require ‘a huge leap in development’, while the transition from Thailand 3.0 to 4.0, which focuses on ‘setting up a sustainable Thai society, social equality and a low level of inequality’, is a major challenge which ‘can’t be achieved through traditional thinking or conventional action’ (p.30).

The main focus of Thai education 4.0 is in line with the Thailand 4.0 policy, which is to enhance graduate production as well as improve educational standards, curriculum, teaching-learning media, language skills of teachers, and human resource development and research (Ministry of education, 2017). However, researches in Thai’s higher education between 1999 and 2009 (Pheeraphan & Sompong, 2011, as cited in Pheeraphan, 2013) focused only slightly on critical thinking and problem solving (12.28%), self-directed learning (4.38%), and collaboration (1.75%) which are core competencies of the 21st century, and mainly focused on the development of learning outcomes through learning achievement (89.47%). Therefore, many scholars who worked on Thai education and the Thailand 4.0 policy (e.g., Cooke, 2018; Santiboon & Ekakul, 2017; Wittayasin, 2017; and Puncreobutr, 2017, 2016) suggest education reform as one of solutions for the Thailand 4.0 policy’s emphasis on achievement.

To drive Thailand into the 4.0 era, Wittayasin (2017) points out ‘poor quality education’ and ‘education inequality’ as two main factors which need serious consideration (p.32-33). Thailand’s educational system was ranked 35th out of 40 countries in 2014 by the Pearson Education report, entitled “*Learning Curve, Lessons in Country, Performance in Education*” (Wittayasin, 2017, p.32-33). Moreover, in 2016, Thailand was ranked 55th out of 72 countries in the overall results by the PISA (Programme for International Student Assessment), which ranks the academic performance of 15-year-old students worldwide in science, mathematics, and reading; Thais were ranked 54th for sciences and maths, and 57th for reading and were considered as ‘performing poorly’ (Wittayasin, 2017, p.32-33).

Since 2011, Thai students have also been indicated as having ‘low’ and ‘very low’ levels of English proficiency by the English First English Proficiency Index (EF EPI), the international English examination, which measures English reading and listening proficiency levels of school and university students around the world. As recently reported by Education First (EF) in 2018, Thailand was ranked 64th out of 88 world countries and 16th out of 21 Asian countries with an EF EPI score of 48.54, which was considered as ‘low’ (Education First, 2018). The skills of Thai university graduates were also deemed less competent for the workplace and for the development of ICT organization (Office of the Education Council 2011, as cited in Pheeraphan, 2013). Based on the low global ranking and local feedback from graduate users, the country urgently needs a reform of its education.

2.2 Thai Education 4.0 and Development of 21st Century Skills

Thai education 4.0 is linked to the concept of 21st century education, which is the major focus of higher education institutions nowadays. To prepare Thai graduates for the challenge of global competition and workplace in the digital era, the Ministry of Education (MOE) and Office of the Higher Education Commission (OHEC) Thailand have set the goal, criteria, and strategies for graduates from Thai higher educational institutions (HEI) to meet the demands of workplaces and graduate users in the 21st century (OHEC, 2017b). The development of 21st century skills and English language acquisition for all Thais was highlighted in the National Education Act of 1999 (B.E. 2542) and the Basic Education Core Curriculum of 2008 (B.E. 2551) as essential skills for Thai graduates (Zuber & Lynch, 2017). Moreover, as 21st century learning places students in the center of the teaching-learning process with the teacher acting as a coach (Adedokun, Loran, Jacqueline & Wilella, 2017, p.1), a learner-centered approach is defined and strongly advocated in the Basic Education Core Curriculum 2008 (The Ministry of Education, Thailand, 2008).

The goals of the Basic Education Core Curriculum 2008 (B.E. 2551) are to develop knowledge and skills for communication, technological know-how, problem-solving, critical thinking, and life skills (OHEC, 2017a). That curriculum also stressed the necessity for Thai students to be proficient in English as it opens new understanding of the diversity of cultures in the global community. Five key competencies, based on the Tenth National Economic and Social Development (A.D. 2007-2011) and proposed as the foundation of the Thai education 4.0. policy by The Thai Ministry of Education (2008) in the Basic Education Core Curriculum of

2008 (B.E. 2551), were (1) communication capability; (2) thinking capability; (3) problem solving capability; (4) capability in applying life skills; and (5) capability in technological application. In addition, Thai students need to develop these skills at a young age or early school levels so that the workforce has the expertise and mindset required to keep pace with growing technologies (Cooke, 2018).

2.3 The Framework for 21st Century Skills

As illustrated by Soparat, Rochanasmita & Klaysom (2015), the education models of the 20th and 21st century are different. While education in the 20th century focused on learning the core subjects and assessing learning outcomes, education in the 21st century includes learning the core subjects and 21st century skills. Saentaweesook (2013, as cited in Santiboon & Ekakul, 2017, p.651) also defines the 21st century framework as ‘the 3Rs + the 4Cs’ known as knowledge and skills which learners in this century need to acquire. The 3Rs include reading, writing, and arithmetic, the core subjects of traditional education, which have been central to education through the 19th and 20th Century. The 4Cs include critical competencies, such as; thinking, communication, collaboration, and creativity. The content of 21st century skills is also the main focus of learning standards and learners’ key competencies of the Basic Education Curriculum 2008 (B.E. 2551) of Thailand as shown in Table 1 below.

Table 1: Thai learners' key competencies in the Basic Education Curriculum A.D. 2008 (B.E. 2551) and the framework of 21st century education (Soparat, Rochanasmita & Klaysom, 2015, p.13)

The Basic Education Curriculum B.E. 2551 (A.D. 2008) of Thailand	The Framework of Education Model in the 21 st Century	
Outcomes/Skills		Sub-skills
Learning Standards: Thai Language/ Mathematics/ Science/ Social Studies, Religion and Culture/ Health and Physical Education/ Arts/ Occupations and Technology/ Foreign Languages	Core subjects: English, Reading or Language Arts/ World languages/ Arts/ Mathematics/ Economics/ Science/ Geography/ History/ Government and Civics	
	21 st century themes: Global Awareness/ Finances, Economic, Business and Entrepreneurial Literacy/ Civic Literacy/ Health Literacy/ Environment Literacy	
Communication Capacity	Learning and Innovation Skills	Communication and Collaboration
Thinking Capacity		Creativity and Innovation
Problem-Solving Capacity		Critical Thinking and Problem Solving
Capacity for Technological Application	Information, Media, and Technology Skills	Information Literacy
		Media Literacy
		ICT Literacy
Capacity for Applying Life Skills	Life and Career Skills	Flexibility and Adaptability
		Initiative and Self-Direction
		Social and Cross-cultural Skills
		Productivity and Accountability
		Leadership and Responsibility

The Partnership for 21st Century Skills, or P21, (2007) has outlined the key elements of education in the 21st century into four major themes: (1) creativity, (2) critical thinking, (3) communication, and (4) collaboration. As explained by Driscoll (2017), these are the skills students need to survive in the current globalized world. 21st century skills are described as three major categories (P21, 2007) as follows;

- (1) learning and innovation skills, which include creativity, critical thinking, communication, and collaboration;
- (2) information, media, and technology skills, which focus on using, managing, and evaluating information from digital sources;

- (3) life and career skills, which suggest that 21st century learners should be flexible and adaptable, self-directed, teamwork oriented, and appreciate diversity, and that leaders must be accountable.

In addition, there have been many attempts to make these key elements of 21st century education more comprehensible for both educators and learners. This effort includes Thai researchers such as Vibulphol, Loima, Areesophonpichet & Ruksopollmuang (2015), who recategorise the skills into three major groups;

- (1) thinking skills, or skills related to thinking, such as problem solving, analyzing and conceptualizing, and creating, innovating and criticizing.
- (2) transversal skills, or skills needed to facilitate one's understanding of and participation in society, which include teamwork, self-regulation, self-adjustment, self-improvement skills, and learning engagement.
- (3) multicultural skills, or skills to communicate and cross specialist border skills, as well as acceptance of cultural diversity.

However, the problem remains that even Thai teachers and educators themselves seem to lack these necessary 21st century skills (Puncreobutr, 2017). Bamrungsin (2017) points out seven essential skills which are lacking among Thai graduates as reported by graduate users: (1) English skills, (2) digital literacy, (3) innovative thinking, (4) adaptability, flexibility and collaboration, (5) critical thinking and problem solving, (6) creative thinking, and (7) media literacy.

To support the new generations of Thais to have these key competencies of the 21st century, there is a need for an effective framework to support both learning outcomes and skills development. However, there has been no valid and reliable standardized scale and framework which is ‘suitable’ for Thais (Ongardwanich, Kanjanawasee & Tuipae, 2015, p.738) or which can be easily adopted by teachers or educators in the real classroom of the Thai context to measure the quality of 21st century teaching and learning (e.g., Hixson, Ravitz & Whisman, 2012; Ravitz, 2014; and Santos, 2017). The only scale which can be found was proposed by Ongardwanich, Kanjanawasee & Tuipae (2015) as a self-assessment tool to develop and measure the qualities of 21st century skills for junior high school students before and after courses. The scales were applied from the Partnership for 21st Century Skills (P21, 2007, as

cited in Ongardwanich, Kanjanawasee & Tuipae, 2015) to measure three factors which are (1) learning and innovation skills, (2) information, media and technology skills, and (3) life and career skills.

To date, although there were a variety of mechanisms developed for measuring 21st century skills, it is easier for teachers and educators if they are provided with ready-made scales which help them easily evaluate both classroom teaching practice and students' competencies. As a result, Ravitz and his team developed 'A Survey for Measuring 21st Century Teaching and Learning', a framework which is ready-made for teachers and educators to reuse and revise with permission from the team (Hixson, Ravitz & Whisman, 2012 and Revitz, 2014). The survey was applied from the international Innovative Teaching and Learning study (Shear, Novais, Means, Gallagher, & Langworthy, 2010, as cited in Revitz, 2014), the Deeper Learning framework from The William and Flora Hewlett Foundation (2010, as cited in Revitz, 2014), and Partnership for 21st Century Skills. The survey consists of eight components of 21st century skills in terms of (1) critical thinking, (2) collaboration, (3) communication, (4) creativity and innovation, (5) self-direction, (6) global connection, (7) local connections, and (8) using technology as a tool for learning as shown below in Table 2.

Table 2: Eight components of 21st century skills adapted from Revitz (2014, p.1)

Skills	Definitions
CRITICAL THINKING SKILLS	students being able to analyze complex problems, investigate questions for which there are no clear-cut answers, evaluate different points of view or sources of information, and draw appropriate conclusions based on evidence and reasoning.
COLLABORATION SKILLS	students being able to work together to solve problems or answer questions, to work effectively and respectfully in teams to accomplish a common goal and to assume shared responsibility for completing a task.
COMMUNICATION SKILLS	students being able to organize their thoughts, data and findings and share these effectively through a variety of media, as well as orally and in writing.
CREATIVITY AND INNOVATION SKILLS	students being able to generate and refine solutions to complex problems or tasks based on synthesis, analysis and then combining or presenting what they have learned in new and original ways.
SELF-DIRECTION SKILLS	students being able to take responsibility for their learning by identifying topics to pursue and processes for their own learning, and being able to review their own work and respond to feedback.
GLOBAL CONNECTIONS SKILLS	students being able to understand global, geo-political issues including awareness of geography, culture, language, history, and literature from other countries.
LOCAL CONNECTIONS SKILLS	students being able to apply what they have learned to local contexts and community issues.
USING TECHNOLOGY AS A TOOL FOR LEARNING SKILLS	students being able to manage their learning and produce products using appropriate information and communication technologies.

To start introducing 21st century skills in the class, we need first to educate teachers according to Whitby (2016) and McKinney (2013). The question of how Thai society can face the

challenges of the 21st century may not arise from finding the best way to educate Thai students, but from finding a way to educate the teachers. As stated by Whitby (2016), many Thai university teachers, who are overwhelmed with teaching loads and administrative responsibilities, can be ‘uninformed educators’ and ‘far less connected to communities where discussions and collaboration with these topics go on daily’ (p.1), even though they are in Bangkok, the capital city. As we cannot avoid having 20th century teachers teaching students in the 21st century, McKinney (2013) proposes professional development as one requirement for teachers in this century. Some possible suggestions by Whitby (2016) are to educate teachers about the way they teach, what and how they teach focusing on their teaching skills and their capacity, not the students.

3. Aims of the Study and Research Methodology

This study reports preliminary findings from an ongoing investigation aiming to explore Thai university teachers’ perceptions of their current instructional practices and to ascertain if there is any connection with the concept of 21st century skills. Two research questions used to guide this research concerned (1) how teachers perceive their readiness as teachers of 21st century and (2) how teachers assess their capabilities to incorporate the 21st century competencies into classroom materials and activities. The use of a mixed method approach, which includes online questionnaire surveys and focus group interviews, was used to collect the data and serve the aims of this study.

3.1 Data Collection

The data collection was planned to be carried out in two phases: (1) distribution of questionnaires and (2) administration of focus groups. To make it convenient for both teachers and researchers, the questionnaire was distributed online via a link on Google Forms. As a staff member, the Head of the Foreign Languages Department allowed me to conduct the study at the university. Initially I planned to involve all English teachers, both Thais and foreigners at the Department, in this study. However, due to the limitations of time, and to make it convenient to conduct the data collection, I limited the participants to a group of teachers who are teaching Foundation English courses for non-English majors since the teaching experiences of this group of teachers would be varied with different groups of students from different levels of studies and faculties. However, some participants, from whom I did not

receive survey responses by email, were excluded from the study after a month when an email invitation and a follow-up memo were sent.

3.1.1 Participants

Initially this study involved 43 part-time (32.55%) and full-time (67.44%) teachers, both Thais (48.83%) and foreigners (18.6%) with different amounts of teaching experience who are teaching a Foundation English course for non-English majors in the first academic semester at a Thai university in Bangkok. The teachers' participation was on a voluntary basis, and they were informed by email before the distribution of the questionnaire that they had freedom to withdraw at any time. The survey opened a month before the end of the semester (1/2018). However, more than half (55%) failed to complete the questionnaire online and requested a printed copy of the questionnaire. Some of them complained that filling in the information via Google Forms was not easy because the site was difficult to read and the questionnaire required a lot of effort to complete. There were 21 teachers (45%) who completed and submitted the online questionnaire. As flexibility and adaptability are highlighted as ideal characteristics of the 21st century concept, and one aim of this research was to explore the readiness of Thai university teachers to embrace the concept, incomplete questionnaires and participants who refused to complete the digital form of the questionnaire were not included in this study.

3.1.2 Questionnaire

The teacher's survey used in this study was adapted from Ravitz (2014) which has been carefully reviewed, made ready for re-use, and reported to receive high reliability (*std. alpha* > .90, *inter-item correlations* > .58) and content validity to measure 21st century teaching and learning. The survey consists of 72 items and is divided into three parts: (1) definitions of eight components of 21st century skills, (2) a list of eight different practices of 21st century skills, and (3) questions about teachers' perceptions, asking how much they perceive themselves having taught and assessed each skill.

The questionnaire started by providing a definition of each component of the 21st century skills quoted from Revitz (2014, p.1) as shown in Table 1 (p.8). The second part consisted of 48

items asking the participants to select the specific classroom practices on a Likert scale from 1-5: (1) almost never; (2) a few times a semester; (3) 1-3 times per month; (4) 1-3 times per week; and (5) almost daily (Ravitz, 2014). The third part consisted of 24 items asking the participants to rate the choice which best described their classroom practices whether (1) the participants have tried to develop the skills in the class; (2) their students have achieved the skills in the class; and (3) the participants have been able to effectively assess students' skills in the class on a Likert scale from 1-5: (1) not really; (2) to a minor extent; (3) to a moderate extent; (4) to a great extent; and (5) to a very great extent. The data were calculated, and mean scores received from each item were used to report the results.

3.1.3 Focus Groups

Eight of 21 participants volunteered to participate in two sessions of focus groups, which were conducted as informal conversations at the end of the semester (1/2018). There were three open-ended questions asking the participants to share their opinions or comments on (1) their familiarity and connection with 21st century skills; (2) teaching practices and teachers' roles in the class; and (3) their concern about teaching Thai tertiary students in the 21st century. There were four participants in each session, which took approximately 20 minutes.

4. Findings and Discussion

4.1 Demographic Data of Participants and Their Teaching Experience

As already noted, there were 21 participants in this study, 19 of whom were Thais and two were foreigners (British and Canadian). The majority of participants were female (80%) and were part-time teachers (70%). Most of them hold a Master's degree (80%) and 20% have a PhD. Their teaching experience at university level ranged from less than 5 years (20%), 6-10 years (60%) and more than 20 years (20%).

4.2 Familiarity with the 21st Century Skills

Table 3 below shows eight components of 21st century learning skills reported by the participants to be practiced in class. The results are based on the second part of the survey which asks about teaching practices which support students' learning of 21st century skills, '*In your teaching of your target class, how often have you asked students to do the following?*' All of the participants believe that they have tried to develop 21st century skills and bring in learning activities and materials which can be connected to eight components of 21st century skills. The 21st century skills believed to receive the greatest amount of practice were communication (mean=3.89), global connection (mean=3.80) and self-direction (mean=3.77), while using technology as a tool for learning (mean=3.19), creativity and innovation (mean=3.15), and local connection (mean=3.03) received less practice.

Table 3: Perceptions of 21st century skills practiced in the class

Frequency of classroom teaching practices which developed 21st century skills	Total mean (N=21)	Total SD	Response interpretation of the practices
(1) Communication	3.89	0.97	To a great extent/ 1-3 times per week
(2) Global connections	3.80	1.07	To a great extent/ 1-3 times per week
(3) Self-direction	3.77	1.11	To a great extent/ 1-3 times per week
(4) Collaboration	3.72	0.64	To a great extent/ 1-3 times per week
(5) Critical thinking	3.51	0.72	To a great extent/ 1-3 times per week
(6) Using technology as a tool for learning	3.19	0.86	To a moderate extent/ 1-3 times per month
(7) Creativity and innovation	3.15	1.29	To a moderate extent/ 1-3 times per month
(8) Local connections	3.03	1.14	To a moderate extent/ 1-3 times per month

Results from the focus groups support what were found from the survey when the participants were asked to describe their familiarity with the 21st century skills concept; five of eight participants were confident that they knew the concept very well while three had heard about the concept, but they were not certain if they correctly understood the meaning of the concept. One participant who seemed to be well aware of the elements of the 21st century concept described her classroom activities which connect with the concept of the Fours Cs.

"The 21st Century Skills include four C's: communication, culture, connection, and community. My activities connect with these skills. For example, students are encouraged to talk about inspiring leaders in Thailand and compare them with the leaders in the text or other countries. As a result, they may be able to pass on the thoughts and culture of Thailand to the world communities."
(Female with a Master's degree, 6-10 years teaching experience)

Nonetheless, similar to what most people in society seem to believe, one participant viewed the concept of 21st century skills as anything related to the use of technology.

"I bring technology to the classroom. So, Yes!" (Female with a doctoral degree, less than 5 years teaching experience)

As reported by participants, their endorsements and applications of the five key competencies as emphasized as the foundation of the Thailand education 4.0 policy by The Thai Ministry of Education (2008) seem to be in moderate practice. However, this group of participants focused more on global connections (mean=3.80) than local connections (mean=3.03). This is in contrast with the research conducted in the Philippines by Santos (2017), in which most of his participants, who were 61 university teachers, rated local connections as highest, while global connections was rated as lowest. As defined by Revitz (2014), local connections mean students are able to apply what they have learned to local contexts and communities. Although global connections received more attention as one of the core competencies of the 21st century, this might be challenging for the teachers who could not ignore the importance of reflecting and transferring knowledge back into the local community, even if their teaching subject was a foreign language such as English.

4.3 Teaching Practices which Developed the 21st Century Skills

Table 4 shows examples of statements in each component of the 21st century skills. The two class activities which the received highest scores on all the 21st century components emphasised oral presentation, and discussion, as class activities which the teachers might use to encourage students' communication skills. Moreover, while students were given opportunities to learn about other countries and cultures and apply information or ideas from other countries and cultures, this group of teachers also allowed their students to choose their own topics of learning, work in pairs or small groups, incorporate feedback on group tasks and plan the steps to accomplish a complex task (See Table 4).

Table 4: Examples of statements (Two most frequent class activities rated by participants)

21st century components (high – low)	Number of statements	Examples of statements
(1) Communication	5	(1) Prepare and deliver an oral presentation to the teacher or others. (2) Answer questions in front of an audience.
(2) Global connection	6	(1) Study information about other countries or cultures. (2) Use information or ideas that come from people in other countries or cultures.
(3) Self-direction	7	(1) Choose their own topics of learning or questions to pursue. (2) Plan the steps they will take to accomplish a complex task.
(4) Collaboration	6	(1) Work in pairs or small groups to complete a task together. (2) Work as a team to incorporate feedback on group tasks or products.
(5) Critical thinking	6	(1) Compare information from different sources before completing a task or assignment. (2) Summarize or create their own interpretation of what they have read or been taught.
(6) Using technology as a tool for learning	8	(1) Use technology or the Internet for self-instruction (e.g., Kahn Academy or other videos, tutorials, self-instructional websites, etc.). (2) Use technology to help them share information (e.g., multi-media presentations using sound or video, presentation software, blogs, podcasts, etc.).
(7) Creativity and innovation	5	(1) Use idea creation techniques such as brainstorming or concept mapping. (2) Generate their own ideas about how to confront a problem or question.
(8) Local connections	5	(1) Investigate topics or issues that are relevant to their family or community. (2) Apply what they are learning to local situations, issues or problems.

Although critical thinking skills were ranked as the fifth of all eight skills in the survey (mean=3.51), when participants in the focus groups were asked to give examples of class activities which could be connected to the 21st century skills, everyone agreed that the activities must encourage students' critical thinking skills. While most participants emphasised critical thinking skills as the most important, some mentioned the '4Cs', the key concepts of 21st century learning.

*"Promoting creative critical thinking is the key focus."
(Male with a Master's degree, 6-10 years teaching experience)*

Six of the eight participants in the focus groups mentioned class activities which support learner centered, and teamwork. Examples of these classroom activities are pair work, group discussion, group project, presentation, and some cooperative learning activities such as jigsaw activity. Five pointed out group discussion on topics related to the course content or to the Thai context as encouraging students to communicate and share ideas in a friendly and comfortable learning environment. The topics mentioned were social and political influencers, or social and environmental problems. Apart from this, two of the participants used the technique of story sharing, in which students were encouraged to share their life stories, favorite films or video clips from Youtube with their classmates. Others mentioned peer evaluation and monitoring sessions, and Q&A sessions.

For ICT (Integration of Information, Communication, and Technology) applications, seven (90%) of the participants mentioned that they use ICT and technology in the class, while one (10%) had never used it. Examples of technology applications used in the class are videos from Youtube (50%), Kahoot (25%), Internet and websites (10%), social media websites and applications such as Facebook and Twitter (10%), and web 2.0, Google Maps and Slideshare (5%).

4.4 Teacher's Roles in the 21st Century Classroom

Table 5 shows participants' overall responses based on the third part of the survey in which they were asked about their teaching of the eight components of 21st century skills. When the participants were asked, '*to what extent do you agree with these statements about your target class?*', most participants (more than 50%) rated themselves as having moderate to high frequency on their attempts to help students learn 21st century skills, '*I have tried to develop students'... skills*' (mean=3.80). Most of the participants reported that they have attempted to develop students' skills to learn and work effectively, either on their own or in teams, to complete complex tasks based on valid evidence and reasoning. Moreover, they believed that their students had opportunities to share ideas through both speaking and writing using various types of media. Most of them also reported to have developed students' awareness and understanding of both local and global contexts and issues. However, as emphasized by Santos (2017), students' perceptions might not be the same as teachers' perceptions since the researcher found that teacher participants in his study rated themselves higher than the scores rated by their students.

Table 5: Participants' responses on teaching practices of 21st century skills

Participants' responses on teaching practices of 21st century skills	Total mean (N=21)	Total SD
(1) I have tried to develop students' skills.	3.80	1.10
(2) Most students have learned skills while in my class.	3.65	1.08
(3) I have been able to effectively assess students' skills.	3.52	1.29

In addition, although most participants believed that students in their class developed the 21st century skills as the scores on '*Most students have learned ... skills while in my class*' seem to be moderate (mean=3.65), when they rated the statement, '*I have been able to effectively assess students' ... skills*', they did not seem to be certain that they had valid criteria to assess students' skills (mean=3.52). This shows a need for assessments which can be easily used to help teachers evaluate their practices in the class.

Based on the focus groups, all of the participants agreed that teachers in the 21st century need to be facilitators. They described their roles as facilitators, supporters, advisors and consultants. Nevertheless, some believed that teachers still need to provide traditional knowledge such as grammar and language skills development.

"Teachers should support and encourage their students to develop critical thinking skills. Also, the students should be mentally supported and motivated to learn a language and to believe that they can be better." (Female with a Master's degree, 6-10 years teaching experience)

Most of the participants pointed out characteristics of the teachers in this century as being motivating, inspiring, not focusing too much on the students' accents and mistakes, and having an ability to relate the classroom content to students' real lives. To help students learn a language effectively in this century, most of the participants also stressed the importance of the roles of teachers to facilitate and provide learning opportunities, both inside and outside the classroom, for example, providing tasks and materials for students to practice the four skills, encouraging students to learn independently outside the class, and guiding them to explore their potential and interest.

"We need to inspire them first and then get them engaged with the language within their comfortable contexts." (Male with a Master's degree, 6-10 years teaching experience)

4.5 Concerns about Teaching Thai Tertiary Students in the 21st Century

For most participants, feedback and academic support from the teachers are still important. To check students' comprehension and to obtain feedback from students, 40% of the eight asked questions to both individual students and the whole class. Some of them involved students in more discussion to give them opportunities to reflect their ideas and opinions while some said that their expectation and evaluation was based on the students' level of proficiency. In some classes with a group of less ability, they did not expect much student engagement.

As a global language in the 21st century, 60% of eight participants also stressed the need to use English as a medium of instruction in the class and were not worried about using English to communicate with students in the class at any time. As Thai students seem to learn only what they need to do well on standardized tests, 20% expressed their concerns about finding effective strategies to motivate students as well as to encourage them to use English in the class especially when students participate in small group activities. 20% focused more on finding motivating applications to get students' attention and to help them practice their communicative skills both in and outside the class. 30% of the participants complained about students' lack of discipline, such as coming to the class late or not attending the class as required by the university.

5. Conclusions and Recommendations

Change can be difficult and uncomfortable, and comfort zones can be the biggest obstacles to change. However, all of the participants in this study seemed to have high confidence to introduce and develop 21st century skills in their class. Most of them believed that their students had opportunities to practice the 21st century skills in the class. However, there is a need for valid assessments which can be easily used to help teachers measure and evaluate the 21st century skills in the class as most of the teachers do not seem to be confident that they have valid criteria to assess students' skills.

This study was initiated with the hope of finding a chance for the Thai tertiary institutions to embrace and integrate the concept of 21st century skills into practice. However, with teaching loads and administrative responsibilities, Thai teachers must be given collaboration time to connect with colleagues as well as to participate in academic enrichment and professional

development programs to improve their teaching practices. In addition, the effectiveness of the classroom teaching practices will not only be effective because teachers consider the practices as necessary, but also because students perceive the practices as being important for their life and their future. Therefore, the next phase of this research project plans to involve a student survey to check whether there is any difference between the teachers and students.

Although there was some resistance to change as mentioned earlier in this paper, and the overall results received from this group of participants might not be able to represent the whole population of teachers at the university where this study was conducted, findings from this study have indicated that there is still the possibility of change. There are some groups of teachers who are willing to adapt and change themselves to enter the globalized world. They have showed through the research data that they understand the concept of the 21st century skills, they are capable of incorporating 21st century competencies into the classroom, and these have been reflected in what and how teachers teach in their real practice.

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