EFL Teachers' Beliefs and Instructional Practices For 21st Century Skills

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Abstract

There is a lack of understanding of the relationship between teachers' beliefs and instructional practices with regard to development of 21st century skills in higher education. A significant number of past studies have dealt with the influence of teachers' beliefs on instructional practices, and vice versa. However, there is still a gap in examining the reciprocal relationship between these two variables, and this is especially true in the context of Japanese higher education where English is a Foreign Language (EFL). Hence, this study adopted the explanatory sequential (quan→QUAL) mixed-methods research design. In the first phase, 33 EFL teachers responded to an online survey that measured teachers' beliefs and instructional practices in developing 21st century skills among language learners. In the second phase, four EFL teachers were selected to be interviewed and observed based on stipulated selection criteria. This measure provided further in-depth insights to explain interactions of the reciprocal relationship between teachers' beliefs and instructional practices in developing 21st century skills among language learners. Findings of this study further elucidated the relationship between these variables by means of empirical evidence, as well as rich descriptions of case studies that illustrate this reciprocal relationship.

Keywords: 21st century skills, teachers' beliefs, instructional practices, English language teaching

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Introduction

Teaching 21st century skills have been prominent field of education for the past two decades due to effects of globalization and the internationalization of economies (Voogt & Roblin, 2012). The goals of education can no longer focus solely on basic literacy skills, which are easy to teach and assess as many skills have been digitalized, outsourced, and automated as world systems grows progressively hyper complex, innovative and diverse along together with the revolution of information and communication (Soland, Hamilton & Stecher, 2013). Questions have been asked regarding what knowledge is worth and what skills or competencies students should possess to be able to actively participate in knowledge-based society (Mishra & Mehta, 2017). As stated by Silva (2009), the essence of 21st century skills focuses on "what students can do with knowledge, rather than what units of knowledge they have" (p.1).

In responding to the needs of knowledge-based societies, education sectors have contributed to the development of 21st century skills framework through via suggestions to incorporate essential competencies for current curriculum. For instance, International organizations such as European Union and Organization for Economic Co-operation and Development (OECD) have proposed critical thinking, complex problem solving, communication and collaboration as part of the core competencies for 21st century learning (Silber-Varod, Eshet-Alkalai & Geri, 2019). Partnership for 21st Century Skills (P21), a non-profit organization, has proposed 21st century readiness for every student to acquire life and career skills, learning and innovation skills, information, media, and technology skills with reference to additional focus on 21st century themes (Dede,2010). Trilling and Fadel (2009) suggested learning and innovative skills, digital literacy skills and career and life skills as essential skills for 21st century education. The National Research Council (NRC) in the United States has introduced three domains of competencies – cognitive, interpersonal, and intrapersonal by synthesizing 21st century skills from perspectives of social science and psychology (Silber-Varod et al., 2019; Soland, Hamilton & Stecher, 2013).

Education reform has led researchers to study the development, implementation, and assessment of 21st century teaching and learning. Relevant literature includes analysis of various 21st century skills conceptual frameworks (Dede, 2010), review and critique of 21st century frameworks (Tan, Chua & Goh, 2015), teacher and student perceptions toward knowledge and understanding of 21st century skills (Fox, 2011; Mishra & Mehta, 2017; Ruettgers, 2013; Santos, 2017) and the relationship between teacher efficacy and teaching of 21st century skills (Davis, 2018).

However, research studies that highlight the actual teaching practice of how teachers effectively develop or integrate the concept of 21st century skills in the academic setting are still significantly limited (Kivunja, 2014). In order to understand teaching practices from the perspectives of teachers, Nespor (1987) indicated the necessity to study teachers' beliefs in which they explain the teaching process. In addition, there is also a lack of understanding in the relationship between teachers' beliefs and instructional practices in developing students' 21st century skills in the specific interest of teaching English as a foreign language (EFL) in a Japanese university. Therefore, this study aimed to explicate the reciprocal relationship between EFL teachers' beliefs and their instructional practices in implementing 21st century skills in English language learning courses at a private Japanese University. An explanatory mixed-method research design was used to investigate the phenomena of 21st century skills instructional practices in a private Japanese university. The results and findings of this study provided general empirical evidence of the target population in the university researched and extensive insights in the form of case studies that showcase the interactions of the reciprocal relationship between teachers' beliefs and instructional practices of the selected teachers. The study also offered several educational implications and recommendations to better develop 21st century learning in Japanese higher education.

Literature Review

The movement of educational reforms for the 21st century have resulted in various impacts in societies. In particular, knowledge tends to be viewed as a source of energy that drives economic growth and well-being in the current knowledge-age society. Global discussion of implementing 21st century teaching and learning in current curriculum has claimed to be a way of learning to innovate education and as innovative learning (Trilling & Fadel, 2009). Although some scholars argued 21st century skills were not new to the century, other scholars counter argued that this concept is a matter of having a new mindset to enhance current learning processes and ways of coping with rapid changes in societies. In Japan, implementation and practices for developing ideas of 21st century skills have existed in the educational concept "Zest for life" since 1996 (Kimura & Tatsuno, 2017). Despite literature indicating the importance of implementing 21st century skills in the classroom teaching practice, there is still a lack of knowledge on how teachers develop these skills among students. With the intention of studying how teachers develop 21st century skills in the tertiary education context, current research examines the relationship between teachers' beliefs and instructional practices toward developing these skills in English language learning courses.

The following sections of the literature review serve as a foregrounding description to contextualize and conceptualize concepts and arguments that have been known and unknown to the research problem. The purpose of the current study focused on the extent of the reciprocal relationship between EFL teachers' beliefs and instructional practices in developing 21st century skills among English language learner students. The literature review is comprised of three aspects that include (1) defining 21st century skills, (2) defining instructional practices, and (3) defining teacher beliefs.

Defining 21st Century Skills

The idea of 21st century skills has emerged as a center of discussion in the education domain since the 1990s. Many teachers, government leaders, and large companies in the United States have gathered to publish reports to inform education trends (Taguma, 2017). The focus of this educational reform was to advocate a re-examination of the purposes of education to respond to the demands of knowledge-based economies and digital age societies (Care, Griffin & McGaw, 2012; Howard, 2018; Taguma, 2017). Global issues surrounding technological changes such as artificial intelligence, climate change, migration, and automation have led many nations to reexamine the goals of education, curriculum, and competencies that students need to prosper in the future (Taguma, 2017). In this section, relevant literature related to the notion and frameworks of 21st century skills is discussed.

Concept of 21st Century Skills

The concept of 21st century skills was said to be comprised of a set of broad knowledge, skills, abilities and attributes valuable for all levels of education to succeed in the current knowledge-age society (Germaine, Richards, Koeller & Schubert-Irastorza, 2016). 21st century skills are acknowledged as transversal (i.e., the attitudes, values, and procedures of working are transferrable across many professional fields) and multidimensional (i.e., emphasizing interconnectedness between knowledge, skills and abilities); illustrating behaviors that help students to cope with complex situations (Voogt & Roblin, 2012).

Emerging 21st century education reforms have certainly resulted in a variety of impacts on and have drawn the attention of educational stakeholders. One ongoing debate on this concept revolved around a diverse array of skills and knowledge associated with teaching and learning in the 21st century. To date, there are various 21st century learning frameworks and thousands of descriptors of 21st century skills (Silva, 2009). Depending on context and agenda of the corresponding stakeholders, the terminology of ‘21st century skills’ or ‘21st century

competencies' is often used to refer to a similar idea. Though there was no single definition widely accepted to describe this concept; literature indicated this phenomenon as normal given the fact that there were innumerable agendas propagated by education stakeholders (Suto & Eccles, 2014). Despite the controversial idea of considering 21st century skills as unique, new or different than skills in the preceding centuries, many educational stakeholders see this reform as new ways of teaching and learning that should be implemented explicitly in the education system and curriculum policy (Mishra & Kereluik, 2011).

Similarly, Reimers and Chung (2019) stated the major difference in this educational reform (or the trend of teaching 21st century skills) lies in developing key skills to every individual rather than to a few elitists for the sake of social mobility and well-being, economic growth and collaborative problem-solution to resolve current turbulent issues. The effect of globalization, emerging information communication technology, and the shift of manufacturing-based economies to knowledge-based economies have pushed forward the development of 21st skills for the demand for innovation and adaptability from both individual and collective nations (Care, Griffin & McGaw, 2012). In facing everyday-challenges, especially in this age of volatility, uncertainty, complexity, and ambiguity (VUCA), the demand of skills and knowledge must take a step beyond mastery of knowledge to a more holistic form to address both individual and collective goals among social, economic, and cultural concerns (Taguma, 2017).

In a study reported by Lendis (2014), the researcher highlighted four attributes (i.e., the average number of jobs in a lifetime; academic, civic and economic expectations; teaching model; assessment model) that differed from the 20th century to the 21st century. The researcher stated that the average number of jobs that most people hold in a lifetime in the 20th century was one or two, but 10 to 15 in the 21st century. The second attribute, which are expectations from society, indicated a change from mastering one field of knowledge in the 20th century to focusing on flexibility and adaptability in the 21st century. Similarly, in regard to the teaching model, 20th century education focused on mastery of subject knowledge, whereas 21st century

education focuses on integration of skills and knowledge across disciplines. As for an assessment model, 20th century education sought mastery of facts in standardized tests, whereas 21st century education requires students to present understanding via authentic demonstrations. Thus, changes in these aspects have alternated the way humans live, work, and learn.

One of the major forces that caused the spread of 21st century skills concept was the degree of effectiveness in the current education system in helping students to face challenges in the new millennium (Kereluik, Mishra, Fahnoe, & Terry, 2013). Dede (2010) asserted that the assessment strategy in education systems often did not measure the quality of being critical or how to derive decisions to solve complex problems. As such, various educational reforms, organizations, and companies have responded to the dilemma in the education system by creating frameworks that involve content knowledge, skills and teaching processes for teachers to promote 21st century skills in the classroom level so that students can graduate with appropriate skills to excel in the future (Dede, 2010).

21st Century Skills Frameworks

As of now, there are various 21st century skills frameworks outlined in the education domain found in literature or online. Many were designed to serve the needs of the 21st century national curricula for local or global contexts. In seeking clarity and consensus on the type of skills or similarities and differences among and between these frameworks, several literature reviews that addressed this inquiry appeared frequently in academic journals (i.e., Dede, 2010; Kereluik et al., 2013; Lamb, Maire & Doecke, 2017; Mishra & Kereluik, 2011; Voogt & Roblin, 2012). Particularly, this literature has contributed to an extensive state of inquiry and critical review on existing local and international 21st conceptual frameworks. The most referenced 21st century frameworks include the Framework for 21st Century Learning (P21) (Figure 1) and the Assessment and Teaching of 21st Century Learning (ATC21S) (Figure 2).

Framework for 21st Century Learning (P21), previously known as the Partnership for 21st Century Skills was published in 2002. The framework was considered one of the most widely adopted and discussed (Dede, 2010; Rice, 2017). P21 was constructed based on contributions from various stakeholders (e.g., teachers, business leaders, educational experts). As Figure 1 shows, P21 highlights connections among skills, knowledge and support systems. The skills which indicate student outcomes are categorized into three areas: life and career skills; learning and innovative skills; information, media, and technology skills. Each area of skills has sub-skills. The framework illustrates that skills are developed through learning core subjects and 21st century themes. In order to promote interdisciplinary learning and deep learning, the framework suggest teachers to integrate key subjects with 21st century themes. By this means, regardless of the core subjects, teachers are recommended to develop student abilities to connect learning to the 21st century themes. In addition, in order to effectively develop 21st century skills, necessary supports are required from several aspects (i.e., standards and assessments; curriculum and instruction; professional development; learning environments). P21 framework stresses the consistency among support systems to regulate the implementation of 21st century learning.

In addition, the framework or model of Assessment and Teaching of 21st Century Learning (ATC21S) was an international project sponsored by three technology companies – Cisco, Intel and Microsoft (Lamb et al., 2017). About 250 researchers across 60 institutions have collaboratively operationalized definitions of 21st century competencies and design of assessments to support 21st century learning. ATC21S was formulated by analysing 12 existing frameworks from different countries. The main idea was to design instruments and strategies for teachers to assess core skills by using ICT (Binkley, Estad, Herman, Raizen, Ripley, Miller-Ricci & Rumble, 2012). The framework was said to be useful for schools to adapt to different contexts. ATC21S categorized 10 skills into four broad categories as illustrated in Figure 2. The four broad categories are ways of thinking; ways of working; tools for working; ways of living in the world.

Within each broad category there are several skills similar to sub-skills in the P21 framework. As compared with the P21 framework, the differences in ATC21S are the way they labelled the "broad category" as to indicate student success in life and work are dependent on achieving the skills within the category (Lamb et al., 2017).

Life & Career Skills	Learning & Innovation Skills	Information, Media, & Technology Skills
• Flexibility and Adaptability • Initiative and Self-Direction • Social and Cross-Cultural Skills • Productivity and Accountability • Leadership and Responsibility	• Creativity and Innovation • Critical Thinking and Problem Solving • Communication • Collaboration	• Information Literacy • Media Literacy • ICT Literacy

KEY SUBJECTS
English, Reading, or Language Arts; World Languages; Arts; Mathematics, Economics; Science; Geography; History; Government and Civics
21ST THEMES
Global Awareness Financial, Economic, Business, Entrepreneurial Literacy; Civic Literacy Health Literacy Environmental Literacy

Standards & Assessments	Curriculum & Instruction	Professional Development	Learning Environments

Figure 1. Adapted Framework of 21st Century Learning by P21

Ways of thinking	Tools for working
• Creativity and innovation • Critical thinking, problem-solving, decision-making • Learning to learn/metacognition (knowledge about cognitive processes)	• Information literacy • Information and communication technology (ICT) literacy
Ways of Working	Ways of living in the world
• Communication • Collaboration (teamwork)	• Citizenship - local and global • life and career • personal and social responsibility - including cultural awareness and competence

Figure 2. Adapated Framework of Assessment and Teaching of 21st Century Skills (ATC21S)

In the context of Japan, Kimura and Tatsuno (2017) offered an analysis of how the concept of 21st century competencies are shaped and integrated into the current curriculum and schooling. Even though there is an absence of overt indications of competencies in educational goals, Kimura and Tatsuno (2017) stated some of the concepts (i.e., social and affective skills) of 21st century competencies have been embedded in the education domain since the 19th century. The ultimate goal of education in Japan is to achieve "Zest for Life" (1998), and this goal was based on values of Japanese traditional holistic approach of "Chi-Toku-Tai" (academic prowess, moral, physical, and mental health). However, despite having discussed how to implement 21st century competencies into curriculum and practice, the situation in schools and curriculum did not show a significant expansion of competencies-based education in reality. As a result, the Panel of Educational Objectives, Contents and Evaluation (a sub-group within the Ministry of Education (MEXT)) has proposed a framework to further assist integration of 21st century competencies into curriculum guidelines (new Course of Study). This effort was led by the National Institute for Educational Policy Research (NIER). They indicated that competencies-based education in Japan focused on the "holistic qualities and abilities that include not only knowledge but skills and attitudes" (Kimura & Tatsuno, 2017, p.4).

The proposed framework consisted of three areas illustrated in Figure 3. The three areas are interconnected with each other in which the foundation of the 21st century competencies are built on basic literacy, collaborative thinking and problem-solving ability, and practical ability to act in the societies. To deepen the ways of using knowledge, students rely on abilities to think critically and logically. To develop personal qualities and values in the society, one refers to the category of practical ability to act for the world. The panel of NIER hope that respective schools will revise their school and curriculum objectives by referring to the proposed framework to help students achieve advancement in 21st century competencies as well as enhance learning assessment from just 'acquiring the knowledge' to 'applying the knowledge' (Kimura & Tatsuno, 2017).

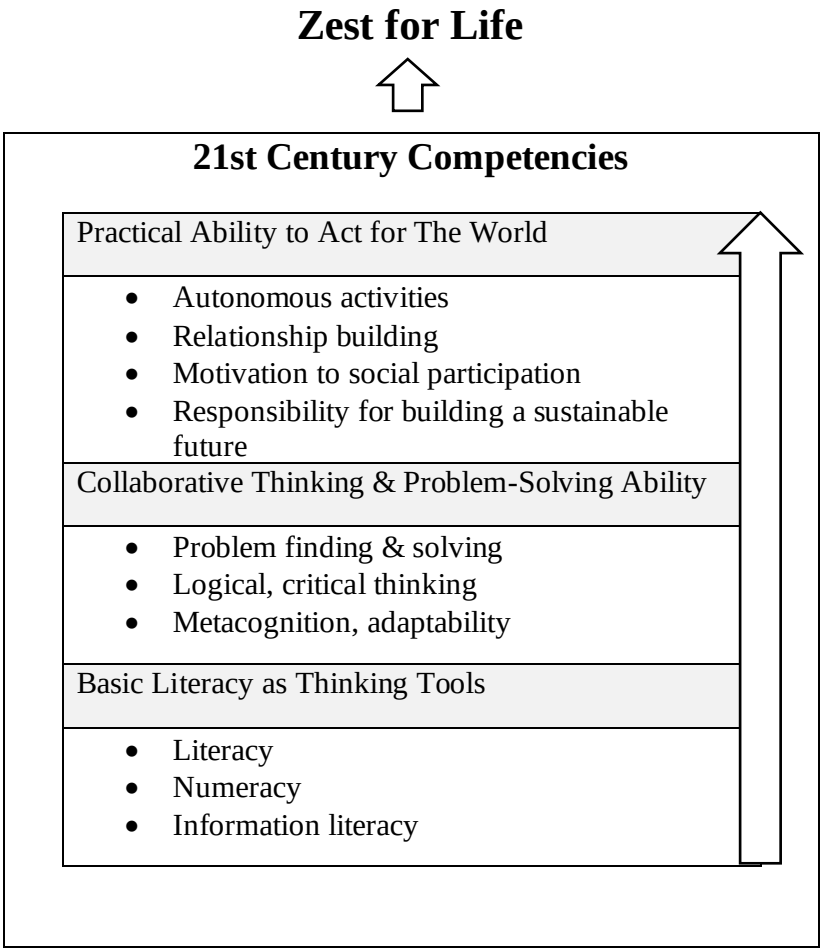

Figure 3. Adapted 21st Century Competencies Framework in the Perspectives Japanese Education Proposed by National Institute for Educational Policy Research (NIER)

In addition to the two common frameworks and Japan's 21st century framework, Hixson, Ravitz, and Whisman (2012) developed a survey using a framework to measure the development of 21st century skills. They conceptualized the framework by reviewing several other frameworks, such as Innovative Teaching and Learning (Shear, Novais, Means, Gallagher, & Langworthy, 2010), Deeper Learning (William and Flora Hewlett Foundation (2010), and Partnership for 21st century skills (2011). In the survey, they have defined the eight skills set as 21st century skills, and the definition of each skill is described as follows:

> ***Critical thinking skills*** refer to student ability 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 refer to student ability to work together to solve problems or answer questions, to work effectively and respectfully in teams to accomplish a common goal and assume shared responsibility for completing a task.

Communication skills refer to student ability to organize thoughts, data, and findings; and share these effectively through a variety of media, as well as orally and in writing.

Creativity and innovation skills refer to student ability to generate and refine solutions to complex problems or tasks based on synthesis, analysis, and combining or presenting what they have learned in new and original ways.

Self-direction skills refer to student ability to take responsibility for learning by identifying topics to pursue and processes for their learning and being able to review their work and respond to feedback.

Global connections refer to student ability to understand global and geopolitical issues including awareness of geography, culture, language, history, and literature from other countries.

Local connections refer to student ability to apply what they have learned to local contexts and community issues.

Using technology as a tool for learning refers to student ability to manage their learning and create products using appropriate information and communication technologies.

Moreover, Dede (2010) provided an analysis of several major frameworks and compared them to the framework of P21. Dede (2010) stated the major frameworks include P21 (2006), the Metiri Group and NCREL (2003), the American Association of Colleges and Universities (2007), and the Organization for Economic Cooperation and Development (OECD) (2005), International Society for Technology in Education (ISTE) (2007). Dede (2010) concluded that numerous among these frameworks were consistent with one another when compared with P21. However, some of the frameworks which indicated different sub skills, other than the skills emphasized in the P21 framework, were in their view, toward the importance of sub skills and those which they

thought were understated in the P21 framework. Apart from that, Dede (2010) also stated that one difficulty in integrating 21st century skills into educational practice and policy was due to the inconsistency of measured skills with the learning culture in the classroom today. Oftentimes, the fundamental obstructions to modifying the curriculum, pedagogy, and assessments were influenced by psychological, political, and cultural issues rather than issues conceptual, technical or economical (Dede, 2010).

Kereluik et al. (2013) presented a critical review of the concept of 21st century learning by analyzing 15 documents which defined and discussed relevant knowledge about 21st century learning. In their study, they aimed to identify common themes and knowledge necessary for teachers and teacher educators to address in order to better understand 21st century learning. Based on their analysis, they argued that despite having varied contrasting 21st century frameworks, types of knowledge which were emphasized in all frameworks could be consolidated into three broad areas: foundational knowledge, meta-knowledge, and humanistic knowledge. They explained that each of these broad areas covered a different realm of knowledge which can be further described into three subcategories. In brief, foundational knowledge consists of the subcategory of core-content knowledge, digital and information literacy, and cross-disciplinary knowledge. Meta-knowledge contains the subcategories of problem-solving and critical thinking, communication and collaboration, and creativity and collaboration. Humanistic knowledge contains the subcategories of life skills, job skills, and leadership, cultural competence, and ethical and emotional awareness.

Part of their main argument was the results of their analysis which revealed a significant contradiction in all frameworks. They claimed, although the 21st century learning frameworks may look different, their finalized consolidation of frameworks that showed the three broad areas of knowledge have long existed and emphasized essential educational goals in the 20th century. The goals of education in the past have been about what students need to ‘know’ (foundational knowledge), how students ‘act’ on the knowledge (meta-knowledge), and the ‘value’ students

carry to the knowledge and action (humanistic knowledge) (Kereluik et al., 2013). Yet, key factors that change the degree of complexity of these perceived core values and goals of education were due to the impact of technology and globalization (Kereluik et al., 2013). With the expansion of ICT and globalization, much information today can easily be accessed and users can alter the way of learning in the new millennium. Above all, crucial point lies in how students learn to go beyond just selecting what they need to know but how relevant and useful the resources are to their learning (Kereluik et al., 2013).

Defining Instructional Practices

With a research focus on instructional practices for 21st century skills, the following subsections provide a general literature review on the concepts of instructional practices, and those necessary to develop 21st century skills.

Concept of Instructional Practices

Teachers often use a variety of instructional strategies to aid students in being autonomous and strategic learners (Walker, 2002). In the context of this study, instructional practices are recognized as any pedagogical action that emerges from the teaching and learning process, and this may include a wide range of processes including, but not limited to, instructional strategies, instructional choices, and relationship building with students (Buehl & Beck, 2015). Instructional practices can also be referred to as the teaching practices or teaching skills interconnected with approaches, methods, strategies, and techniques that facilitate, assess, and elicit student learning. According to Anthony (1965), there are three hierarchical elements to explain the differences between approach, method, and technique in language teaching education. An approach is referred to the assumptions, beliefs or theories related to the nature of teaching and learning, and the nature of language. For instance, how can language be learned? This concern can be outlined in the views of cognitivists, behaviourists, or constructivists. A method

is described as the overall design of flow, or how to present language based on the approach. Methods involve how to teach language that adheres to assumptions. Alternatively, technique is a specific activity that takes place in the classroom or on the implementation level; for example, using role plays to encourage authentic learning. Furthermore, technique could also involve tasks and activities planned and deliberated by teacher. Techniques are often the by-product of instructional choices or decision-making by the teacher who thinks of what to do and what not to do based on assumptions and methods in mind (Brown & Lee, 2015). The style of presentations, elicitations of prompts from students and teachers, instructions, and ways of managing errors in the classroom are also considered teaching skills (Wajnryb, 1992).

Instructional Practices to Develop 21st Century Skills

In order to build a deeper understanding of how to develop 21st century skills in students, relevant literature has been referred in addition to related practices in the survey. However, due to the broad definition of 21st century skills and existence of various frameworks, instructional practices to develop these skills are often not clearly identified in literature. Some scholars indicate that the role of instructional practices for 21st century education is to encourage students to be life-long learners, to learn as a community with actual practitioners, and to use a variety of face-to-face, virtual and blended communications. On the contrary, teachers are encouraged to evaluate existing effective teaching practices and infuse those with innovative approaches to maximize impacts of learning (Fullan, Quinn & McEachen, 2017). This application can be illustrated by an organization such as New Pedagogies for Deep Learning (NPDL), a global partnership. The organization formulated a fusion of most effective pedagogical practices and emerging innovative practices. For example, the models of proven effective pedagogical practices involve inquiry learning, problem-based learning, experiential learning, simulations, integrative thinking, whereas the models for innovative practices include co-designing learning partners, blended learning, and online learning. The list of instructional practices is endless.

Hence, the following sub-sections provide possible explanations and instructional practices to develop 21st century skills that were referenced to in the P21 framework, journals, and educational websites.

Critical thinking skills. Based on the foundation for Critical Thinking, critical thinking was defined as "the intellectually disciplined process of actively and skilfully conceptualizing, applying, analysing, synthesizing, and/or evaluating information gathered from, or generated by, observation, experience, reflection, reasoning, or communication, as a guide to belief and action" (Scriven & Paul, 2007, p. 1). Critical thinking is understood as thinking about a subject critically, that requires one cognitive analysis and is followed by the element of evaluation in order to have informed actions (Nilson, 2018, October 4). Many scholars encourage students to think critically or to re-confirm their thinking of what has been known to be valid in order to assess their own misconceptions with better validity in thinking (Nilson, 2018, October 4). In other words, by using critical thinking skills, students allow evidence or properly reasoned views to guide thinking; thus, diminishing existing bias and prejudice toward the knowledge discussed.

Some of the instructional strategies to develop critical thinking skills include inquiry-based learning, questioning, KWL – know, want, learn, problem solving, debates, cube method, case study, prediction formulation, and reflection (Cretu, 2017). In addition, one of the most common instructional practices that help students be critical thinkers is the use of questioning techniques. The ability to question is a key strategy to developing critical thinking skills in classroom interaction. Asking opened-ended questions and the why-question allow students to think deeply and scrutinize their thinking and knowledge in regard to the topic discussed (Minds in Bloom, 2019). The model of the Bloom taxonomy thinking processes has been a significant reference for teaching critical thinking skills. The order of questions triggers different cognitive responses (Chen, 2016). The initial Bloom taxonomy created in 1956 consists of nouns of six levels: knowledge, comprehension, application, analysis, synthesis, and evaluation. Effective teachers tend to employ higher and lower order thinking questions in teaching. The lower-order

thinking questions are for retrieving facts and displaying questions, whereas higher-order thinking questions are associated with referential questions. Higher-order thinking skills are the top three levels of thinking processes, whereas, lower-order thinking skills are the remaining lower three levels. The revised Bloom taxonomy has enhanced application by teachers by changing noun forms to action verbs such as remember, understand, apply, analyse, evaluate, and create. The model of Bloom taxonomy is useful in developing assessments, lesson plans, and self-assessments. For lesson planning, teachers can refer to the action verbs in Bloom taxonomy to create lesson objectives to elicit desired student behaviors (see Farrell, 2002). On the other hand, research has indicated that combining some of these thinking skills can also elevate learning outcomes regardless of order of learning (Trilling & Fadel, 2009).

In addition, Paul (1992) suggested techniques to enhance critical thinking skills. He suggested teachers to use brainstorming as a thinking tool to allow students not only to discuss the given ideas with their peers but also to formulate thoughts and arguments with reference to given ideas, and create problem solutions. Moreover, he suggested teachers to ask student opinions regularly on subject issues or concepts discussed as well as allow students to discover and develop their interpretations of categories before giving answers in advance.

Collaboration skills. Collaboration refers to the ability to work well as a team to produce a joined product or achieve a targeted goal. The concept of collaboration is frequently associated with Vygotsky social learning theory. The theory of zone of proximal development sheds light on assistance that students obtain from peers and teachers to solve a problem and nurture knowledge growth. Instructional practices to develop collaboration skills could begin by establishing roles and responsibilities among group members, setting an action plan that each member can contribute to the targeted goal, and executing tasks based on the group plan (Global Digital Citizen Foundation, 2019). Regardless of any business environment or not, teamwork is greatly appreciated and acts as a powerful asset to achieving success. Unlike cooperation, the process of collaboration enables each individual to interact and negotiate communication as an equally

respected individual to generate new understanding, plans, and ideas toward shared goals (Child & Shaw, 2016). Group success is more valuable than individual success in relation to collaboration. Furthermore, there are instructional strategies which can enhance modes of collaboration. Some of the major techniques that allow elements of collaboration include project-based learning, problem-based learning, and design-based learning, partner-talk, think-pair-share, brainstorming, the jigsaw method, fishbowl, debate, four-corners, role play, Socratic circles, and reciprocal teaching (Cretu, 2017; Fullan, Quinn & McEachen, 2017; Trilling & Fadel, 2009). The justification of collaboration skills as defined by Partnership for 21st Century Skills (2019, p. 5) include to:

- Collaborate with others
- Demonstrate ability to work effectively and respectfully with diverse teams
- Exercise flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal
- Assume shared responsibility for collaborative work, and value the individual contributions made by each team member

Communication skills. Communication skills are crucial to social skills to exchange information and build relationships. Instructional strategies that facilitate student communication skills include a variety of communication styles, modes and tools to convey messages across a range of audiences. Communication skills involve asking students to share ideas, comments, opinions, and constructive feedback to classmates and teachers in different manners such as by presentations, technology, and both oral and written forms. Based on Partnership for 21st Century Skills (2019, p. 5), possible communication skills involve asking students to:

- Articulate thoughts and ideas effectively using oral, written and nonverbal communication skills in a variety of forms and contexts.
- Listen effectively to decipher meaning, including knowledge, values, attitudes and intentions

- Use communication for a variety of purposes (e.g., to inform, instruct, motivate and persuade)
- Utilize multiple media and technologies, and know how to judge their effectiveness a priority as well as assess their impact
- Communicate effectively in diverse environments (including multi-lingual)

Creativity and innovation skills. Instructional practices to develop creativity and innovation skills include brainstorming, six thinking hats, drawing, posters, brain-writing, free write, Quintet, project (Cretu, 2017). Similarly, Partnership for 21st Century Skills (2019, p. 4) stated the following practices to foster creativity and innovation skills in students which include to:

- Use a wide range of idea-creation techniques (such as brainstorming)
- Create new and worthwhile ideas (both incremental and radical concepts)
- Elaborate, refine, analyze, and evaluate their own ideas in order to improve and maximize creative efforts

Self-direction skills. Self-direction is part of the life skills in P21. The main goal of teaching this skill is to promote independent learners. Being an independent learner is not a simple undertaking even for the most motivated students (University of Waterloo, n. d.). The University of Waterloo (n. d.) offered four steps to independent learning: "being ready to learn, setting learning goals, engaging in the learning process, evaluating learning". In addition, Wabisabi Learning (2018) elaborated that self-directed learning is associated with internal motivation that requires being aware of autonomy, mastery, and purpose. Self-directed learning is not only learning independently but requires hard work or deliberate practice that fueled by intrinsic motivation to guide process. This means knowing purpose of learning, making appropriate study plans, engaging with a topic, and knowing how to assess learning by consulting peers or teachers. Teachers can encourage students to assume ownership in their learning, and emphasize learner autonomy by asking students what they want to learn, why is it important to

learn, and how can they learn. Unfortunately, there are not many resources regarding instructional practices to develop self-direction skills.

Global and local connections. Global and local connections can be used to develop global competence or global citizenship. As the world moves toward greater interconnectedness via steadfast development of information, communication and technology, the purpose of education should aid students to be aware, curious, and interested in both local and global issues beyond the classroom. 21st century learners desire to build knowledge, values, attitudes, and skills about the world in order to contribute to society. Suvansri (2016) noted that global pen pals are one effective way to build global competence. Suvansri created an opportunity for global collaboration via video pen pals in her class, and her students were able to develop empathy through interacting with students from different cultures. The collaboration, as she claimed, aroused different learning styles such as using technology as a tool for learning which enables students to share ideas and opinions with new audiences across the globe. In a research that investigated teachers' beliefs and practices related to global awareness at a secondary school in Henan province in China, Hongtao (2013) claimed that developing global awareness is important to nurture global citizens to have tolerance and open-mindedness. The practice Hongtao suggested included using global issues from the text, literature, movies, and music to endorse inclusivity of cultural diversities. In particular, Hongtao highlighted using vocabularies related to cultural diversity and translation activities that help students build critical awareness of the world and intercultural competence. In addition, the OECD PISA global competence framework offered several dimensions to improve global competence including:

- Examining issues of local, global and cultural significance.
- Understanding and appreciating perspectives and world views of others.
- Engaging in open, appropriate and effective interactions across cultures.
- Taking action for collective well-being and sustainable development.

Using technology as a tool for learning. Technology integration practices in classrooms are able to complement, reinforce, transform, and enrich the teaching and learning process (Ertmer, Ottenbreit-Leftwich, Sadik, Sendurur & Sendurur, 2012). A wealth of information can be obtained from a click or search via internet resources. In this skill set, teachers can provide instruction on information, media and digital literacy. Traditional skills used in online learning involve doing research, listening to audio files, and managing reading and writing (Kanokpermpoon, 2013). Students can use technology to assist learning (i.e., learning how to assess credibility and validity of online resources, present, transfer, save and back up information, design digital images and e-portfolios, create podcasts, blog, and understand academic plagiarism and copyrights) (Kanokpermpoon, 2013). In terms of P21, the framework focuses on information, media, and technology skills. For instance, some skills involve asking students to assess and evaluate information, analyze messages constructed and mediated in media, create products using media creation tools and use technology to manage learning.

Defining Teachers' Beliefs

In the early years, the urge to study teacher beliefs necessitated the creation of a clear psychological construct of beliefs that serve as a descriptive and predictive tool to explain differences in terms of teacher experience, practices, and student achievement (Five & Buehl, 2012). Understanding beliefs from teacher perspectives also helps in understanding how teachers explain their work (Nespor, 1987). Research on teacher beliefs concerns issues such as methodological construct, theoretical perspectives, intention of studying beliefs, and the meaning of labels in relation to any issues discussed (Five & Buehl, 2012). How authors define, use, and measure teacher beliefs will ultimately influence different variables and evoke different results based on design of the study. Despite growing research on teacher beliefs education over past decades, the major problem stated in these studies delineated the lack of cohesion and clear concepts of beliefs to be defined or used across disciplines, due to broad spectrum and

complexity (Five & Buehl, 2012; Gao, 2014). Even so, despite the complexity in the constructs of beliefs, educational stakeholders and proponents of literature believe the worthiness in studying teachers' beliefs (Five & Buehl, 2012). The literature review in this section includes concept of teacher beliefs, development of research on teacher beliefs, and relationship between teacher beliefs and practices.

Concept of Teachers' Beliefs

There are a variety of definitions to explain the concept of teacher beliefs. One definition by Basturkmen, Loewen and Ellis (2004), is the statements of truth that expressed thoughts, views and knowledge that consist of evaluation of what is right, and what should be done or what is desirable (Basturkmen, Loewen & Ellis, 2004). This definition generally expressed beliefs as a value system (Linde, 1996). The concept of teacher beliefs can also be described in conjunction with the nature and functions of beliefs. The following subsections highlight the concepts of nature and function of beliefs, followed by the influence of beliefs and practices and methodological issues in studying beliefs and practices.

Five and Buehl (2012) addressed the most prevalent concerns related to what and how beliefs can be defined and used based on synthesis of past literature. They derived two main ideas: nature and functions of beliefs. They mentioned two approaches to study teacher beliefs. The first approach is to look at the specific belief topic of interest teachers hold through descriptive standpoints and review frequently held beliefs across teachers. The second approach is to define and differentiate underlying concepts of teacher beliefs that compose characteristics and functions of beliefs. The nature and functions of beliefs were described as below:

Nature of Beliefs. In terms of the nature of beliefs under the first approach, the most commonly reviewed and investigated belief topics in the teacher beliefs research are those related to self (e.g., teacher self-efficacy, teacher identity, and teacher role), context or environment (e.g., school environment or culture, relationships with co-workers, parents and administrators),

content or knowledge (e.g., any forms of knowledge they educate to students and learn for their own sake), specific teaching practices (e.g., inquiry strategies, cooperative learning), teaching approach (e.g., the holistic approach in terms of constructivism, transmission) and students (e.g., student ability, language differences, diversity). Though literature has indicated challenges in defining the term of 'belief', Five and Buehl (2012) showed disagreement on this and justified that the main issue was not that the term was difficult to define, but rather, the consistency of definition and usage of the term in different fields to examine the construct.

For the second approach, the most commonly discussed characteristics within the definition of beliefs defined by various authors included five areas: the extent of consciousness disposition in beliefs, the stability or dynamism of beliefs, situated or generalized beliefs, the connection between belief and knowledge, and beliefs as personally defined or in conjunction with a larger system. For instance, Pajares (1992) defined belief as "an individual judgment of the truth or falsity of a proposition" (p. 316), and this definition illustrated the characteristics of beliefs as being personally defined. On the contrary, Thompson (1992) defined beliefs as a system which is dynamically influenced by practices and subject to contextual environments and illustrated the characteristics of beliefs as dynamic, situated, and part of a larger system. Subsequently, the functions of beliefs also play an important role in conceptualizing beliefs.

Functions of Beliefs. Understanding the function of teacher beliefs helps to explicate what beliefs do and how they influence teachers in teaching and learning processes. Five and Buehl (2012) identified three main functions of teacher beliefs: filters, frames and guides. First, the purpose of teacher beliefs is used to filter and interpret incoming information and experience. For example, Lee, Baik and Charlesworth (2006) analyzed and compared perceived gains of teaching practice (the aspect of scaffolding skills in regard to developmentally appropriate practice) of Korean kindergarten teachers in an in-service training with experimental study. Initially, there were no significant differences between the control group and the experimental group in the use of scaffolding skills before training. However, after the in-service training,

results showed that the experimental group had greater gains in the scaffolding measure which showed inculcation of scaffolding skills and tactics in lessons. In addition, the research proposed that visible application of what is learned (e.g., information received during the training) may be due to similar beliefs on new learning in training with existing teaching beliefs. On the other hand, teacher beliefs also act as filters to recognize what information is relevant to students (Five & Buehl, 2012).

Second, teacher beliefs are used to frame particular situations and problems. Meaning, the framing role in teacher beliefs is how teachers use filtered information to define and elaborate an issue or task in the classroom or in lesson planning as well as in reflection on teaching. For instance, Yadav and Koehler (2007) used case-based videotape lessons of literacy instruction to study the extent to which pre-service teacher epistemological beliefs on the nature of knowledge were influenced and justified by cases (the videotape lesson) they selected. Pre-service teachers explicated examples of effective reading instruction from the video and justified why the teaching practice shown in video was effective. This case study illustrated pre-service teachers used their individual beliefs to define the nature of the issue showcased in the video. The results indicated that the selection of videos by the pre-service teachers were consistent with their prior teaching beliefs.

Third, teacher beliefs are used to guide intention and immediate action. Action is often followed by what information has been filtered and perceived cost of benefits in a task. The quality of teacher actions is influenced by behaviours and decisions as well as the persistence and effort they sustain. Common beliefs that guide intention and action of a teacher are known as the motivational constructs of teachers, such as self-efficacy, motivation, and self-concept in relation to any particular area of knowledge. How teachers value the complexity of tasks or techniques in teaching (e.g., teacher thinking, feasibility and successful rate of cooperative learning in class) will guide their teaching practices. The concerns on the expectations from students or

expectations in teaching and learning (expectancy beliefs) also act as guidance to teaching practice (i.e., immediate action).

Influences on teachers' beliefs. As consolidated by Borg (2003), teacher beliefs are influenced by four major components: schooling, professional coursework, contextual factors, and classroom practices including practice teaching. Teacher beliefs are often said to be constructed during school years and are in the period in which they are exposed to extensive classroom observations of how teachers teach. In this respect, Lortie (1975) called this concept "apprenticeship of observation". Observations help student teachers establish mental images of what is effective in teaching. During the school years, they see their teachers as 'models of action' during which time they formulate personal pedagogical theories. In addition, novice teachers tend to use these mental images to guide teaching practice, but novice teacher images may not be necessarily effective, especially in the early stages of teaching, as their ideals, beliefs and preferences of teaching style may not be actually suitable for students (Gandeel, 2016).

Professional coursework is related to teacher training or teacher education and professional development. The professional coursework that teachers receive plays a role in influencing, adjusting and reshaping teacher beliefs. In this period, teachers are constantly receiving and absorbing new content knowledge, discovering or learning new teaching and learning theories as well as teaching methodology. As mentioned previously, some teacher beliefs were already developed prior to attending teacher education courses (Borg, 2003). Hence, there has been a significant number of studies that explore the effect or impact of teacher education in hopes of understanding how teacher beliefs are shaped and influenced (e.g., Freeman, 1993). On the other hand, contextual factors that influence teacher beliefs involve aspects of students, policies, curriculum, and colleagues.

Methodological issues in studying beliefs and practices. Past research has indicated that types of methodological construct used to study the relationship between beliefs and practices also influence the outcome of research. The key concern is how the researcher uses

different methods to elicit the types of beliefs. Phipps and Borg (2007) claimed that the use of surveys could elicit teacher theoretical or idealistic beliefs based on what teachers think of how teaching is supposed to be, but in-depth interviews on actual classroom practice could offer more practical beliefs that reflect reality of teaching. Thus, the matter of using quantitative or qualitative research design will influence the robustness of research data.

Development of Research on Teachers' Beliefs

The interest to study teacher beliefs has shaped progressively along with the influence of different theoretical perspectives in educational inquiry. Theoretical perspectives include behaviourist, cognitivist and socio culturalist. To date, the dominance of behaviourist views between the 1940s and 1950s has discouraged researchers from studying cognitive aspects of teaching such as beliefs; however, the aspect of beliefs has started to be impinged upon with relation to the construct of teacher personality and characteristics (Ashton, 2015). Freeman (2002) discussed development of research on teacher beliefs in three stages: before the mid-1970s, the 1980s and 90s, and between the 1990s and 2000s. In the period leading up to the mid-1970s, teacher mental lives or thought processes that supported what teachers were to do in class were underscored as teaching was supported by the dominance of process-product approach and was viewed as a linear cause-and-effect-activity in which the cause, teacher behaviour, was an effect of student achievement (Freeman, 2000; Gabillon, 2013). The role of the teacher was regarded as skilful technician (behaviour-oriented) who were expected to teach based on content knowledge they mastered (Johnson, 2006). Typically, teachers performed or delivered content based on set curriculum which included which methodology to use, and how students should learn (Freeman, 2000). The dilemma of the process-product approach was that teacher internal thinking and teacher concept of good teaching and learning process were not considered (Freeman, 2000). However, the most influential concept that emerged in the 1970s was related to the matter of teacher decision making in teaching and learning.

Freeman (2000) marked the period between the 1980s and 1990s as the period of change and reconceptualization of how teacher knowledge and learning were understood. Labels and topics on teacher beliefs emerged in literature during this period included apprenticeship of observation (Lortie, 1975), personal and practical knowledge in teaching (Elbaz, 1981), hidden pedagogy (Denscombe, 1982), teacher images (Clandinin, 1985), culture of teaching (Feiman-Nemser & Floden, 1986), pedagogical content knowledge (Shulman, 1987), beliefs, principles, assumptions (Parajes, 1992), and philosophical assumptions in teaching. Nonetheless, the actual change of this trend in teacher education only occurred in the 1980s due to the impact of cognitivist views which shifted education research (Gabillon, 2013). In this period of reconceptualization, teacher mental lives, and teacher cognition gained remarkable acceptance. Methodologies to study aspects of teaching have also evolved significantly in order to look at which issues to study and how to study teaching. In comparison to the period before the 1970s, teaching is now complex rather than linear, and teachers are regarded as knowing what to do instead of just implementing other ideas (Freeman, 2000; Gabillon, 2013).

In the period of the1990s to the 2000s, the postmodern view, Freeman (2000) stated this period as a decade of consolidation. The understanding of teacher beliefs has been consolidated and soundly developed even in public policy. The public understands the importance of teacher roles. Teacher thought processes were established as context dependent and that consider the background, experience, and position of the teacher in the social context. This period has emphasized that every teacher perceives and understands his or her teaching and classes differently. Similarly, this period evoked debate on consistency and inconsistency in the relationships between teacher beliefs and practices. While the debate continues, a different school of thought has arisen. The direction of research studies has moved towards a socio-cultural perspective to examine teacher beliefs and practices as a complex relationship from the 2000s onwards.

Relationship Between Teachers' Beliefs and Teachers' Practices

According to Buehl and Beck (2015), there are three distinctive possible relationships between teacher beliefs and teacher practices, but ultimately the relationship is induced as a rather complex, reciprocal influence relationship. First, the possible relationship extends from beliefs as an influence on practices on the basis of beliefs seen as antecedents to teacher behaviour. Teacher judgments and perceptions are influenced by beliefs the teachers hold, and that effect will result in enacted practices in the classroom (Parajes, 1992). This premise is often found in research on teacher beliefs which have been shown to correlate and be congruent with teacher practices; thereby, concluded beliefs as influence on practice.

On the other hand, the second perspective is that practices influence beliefs on the basis of engagement in specific activities and practices that lead to influence on the teacher beliefs. This notion is often highlighted as desired outcome of professional development such as workshops or teacher training for in-service teachers and outcome of practicum experience gained in pre-service teaching. By engaging in teacher training and practicum experience, teachers may experience using new or designated teaching techniques or approaches to classroom practices that may lead to changes in beliefs (Buehl & Beck, 2015). When teachers attempt new techniques and experience success in those teaching techniques, this increases their self-efficacy beliefs or capability beliefs. The self-efficacy beliefs refer to an individual perceived ability to perform a task to produce desired outcome (Bandura, 1997). One of the prominent factors to instil a strong sense of self-efficacy is experiencing success or mastery of experience (Bandura, 2010). In this case, when teacher experiences positive outcomes from using new instructional practices, in turn, the success will build robust belief in self-efficacy. On the contrary, failures, unfamiliarity or activities that exceed personal coping capabilities will decrease self-efficacy beliefs (Bandura, 2010). The level of support in helping teachers in teaching will determine the increase, decrease, and unchanged of self-efficacy (Buehl & Beck, 2015).

The third perspective of the relationship is that teacher beliefs are dissociated from their practices. Teacher beliefs can be inconsistent or incongruent with teaching practices. For instance, in a survey with 558 teachers from England, James and Pedder (2006) found a gap between teachers' classroom assessment values and assessment practices. Although the majority of teachers perceived great value in making learning explicit and promoting learner autonomy, perceived practices for executing the two practices elicited were behind the level of values. In addition, researchers also identified teaching practices, in particular performance-oriented practices ahead of teacher perceived values.

Lastly, the final perspective of the relationship between teacher beliefs and practices can be discussed as dialectal and reciprocal as well as a complex relationship. This notion indicated that the relationship may vary depending on the individuals, contexts and methodological constructs to measure the types of beliefs and practices. The variations of this measure are highly depending on the experience of the teachers and which beliefs have been put forward to assess in relation to the outcome of practices. For instance, in the study of a critical relationship between teacher beliefs and technology integration practices by Ertmer, Ottenbreit-Leftwich, Sadik, Sendurur and Sendurur (2012), they selected 12 K-12 awarded-winning technology integration practices teachers to examine the consistency usage of technology align with their pedagogical beliefs and classroom technology integration practices. Even though they were award winning teachers, results showed variations in the degree of congruence and incongruence between teachers' beliefs and practices. Five and Buehl (2012) claimed research on this perspective should seek evidence to understand the variations in the relations between beliefs and practices, such as teacher experience and the type and functions of beliefs.

Conclusion

To conclude, the literature review has contextualized and conceptualized the concepts, related arguments, and relevant in-depth academic discussion regarding the topic of 21st century

skills, instructional practices, and teacher beliefs. The importance of teaching 21st century skills has increased significantly in the education domain. However, teaching is such a contextual art, how teachers develop students' 21st century skills, especially in the context of Japan as well as in English language teaching in higher education, are very much lacking in understanding. In order to study instructional practices on developing these skills, the aspect of teacher beliefs should be considered in helping to analyze the relationship between beliefs and practices towards developing 21st century skills.

Statement of the Problem

The concept of 21st century skills has been an indispensable educational repertoire for the past two decades, and this concept has triggered a series of educational reforms in all levels of education. However, there has been a profound gap of knowledge in how 21st century skills are integrated into mainstream curriculum and how these skills can be effectively taught or developed (Kivunja, 2014). Previous literature indicates that the gap between teacher beliefs and practice related to 21st century skills instruction directly impacts the development of sustainable implementation of 21st century learning (Voogt & Roblin, 2012). To address these gaps, recent literature has been found to associate with this topic including the examination of the relationship between teacher self-efficacy and 21st century skills instructional practices (Davis, 2018; Rice, 2017), the examination of teacher education that aimed to prepare pre-service teachers to apply 21st century instruction in public middle-school settings (Menand, 2013), an action research that aimed to gain awareness and to evaluate the degree of 21st century skills implementation in a high school setting (Hall, 2018), analysis in primary school teacher education (Ruettgers, 2013), and a systematic literature review of 21st century competencies in primary education (Chalkiadaki, 2018).

Nonetheless, there is still a significant deficiency of study in the inquiry of teacher beliefs and practices towards teaching of 21st century skills among students in an English language teaching context, especially in the context of English as a Foreign Language (EFL) in the tertiary

education. Studying English language teachers' beliefs and practices outlined several benefits such as to gain insights and explanation of teachers' action beyond a general description, to gain insights to design program of language teacher education, and to reflect on the teacher development as well as to develop language teaching pedagogies (Breen, Hird, Milton, Oliver & Thwaite, 2001). Furthermore, the current understanding of the relationship between beliefs and practices shown in the past literature has established as being a reciprocal influence (both beliefs and practices influence one another) instead of a unidirectional influence (either beliefs influence practices or practices influence beliefs). Therefore, studies that examine a reciprocal relationship between teachers' beliefs and practices are very much valuable (Borg, 2018). Apart from that, Borg (2018) also indicated that the current purpose of studying the belief-practice relationship should gear towards gauging teacher professional development and engagement in the teaching profession. With these gaps, the current study aimed to examine the reciprocal relationship between EFL teachers' beliefs and their instructional practices in cultivating the 21st century skills among students at a private Japanese University.

Purpose of the Study

Understanding the relationship between teachers' beliefs and practices is an essential aspect in engaging teachers in the teaching profession (Borg, 2018) The purpose of this study was to explicate the extent of the reciprocal relationship between EFL teachers' beliefs and their instructional practices at a private Japanese University. The study commences by investigating the relationship between teachers' beliefs and instructional practices in developing 21st century skills among students in English language learning courses using validated survey instruments. Subsequently, the study employs case study observations to further explain the reciprocal relationship between teachers' beliefs and instructional practices in relation to their survey and classroom practices.

Research Objectives

Based on the aforementioned purpose, the objectives of the study were as follows:

1. To investigate the relationship between EFL teachers' beliefs and instructional practices in developing 21st century skills among students in the English language learning courses.
2. To explain the interactions of the reciprocal relationship between teachers' beliefs and instructional practices in developing 21st century skills among students in the English language learning courses through case study observations of actual classroom practices.

Research Questions

With the focus on explicating the extent of the relationship between EFL teachers' beliefs and their instructional practices that support 21st century skills development, the following questions were formulated to guide the research inquiries.

1. What is the relationship between teachers' beliefs and instructional practices in developing students' 21st century skills among EFL teachers?
    a. To what extent do EFL teachers perceive development of 21st century skills among students through their use of instructional practices?
    - Null hypothesis (H01): There is no significant relationship between teachers' beliefs and the frequent use of instructional practices to develop students' 21st century skills.
    - Null hypothesis (H02): Teachers' beliefs do not significantly predict the frequent use of instructional practices to develop students' 21st century skills.
2. How do the EFL teachers' explanations of their teachers' beliefs and instructional practices relate to actual classroom practice?
    a. What beliefs do the teachers hold regarding: teaching, role and responsibilities as an English teacher, goals of teaching English, influences on teacher beliefs and practices, teaching of 21st century skills?

b. Which 21st skills instructional practices are observed in the classroom observations and how were they taught?

Significance of the Study

The inquiry of the relationship between teachers' beliefs and practices has been widely studied for several decades. The contribution of such studies often offered insightful and tangible implications in revealing teacher thinking and executed instructional practices. The current study will benefit various educational stakeholders such as the in-service teachers and pre-service teachers, teacher trainer, school administrators, and future researchers.

The results of the study provided in-service and pre-service teachers the information on the extent of teachers' beliefs influences on the frequency use of instructional practices in developing 21st century skills in the context English language teaching in a private Japanese university. The empirical findings will identify the extent of teachers' beliefs and instructional practices that are valued and undervalued by the participants, and enable awareness building in teachers to enhance their understanding that could improve development of 21st century skills instructions. With the emphasis on the role of teachers as being of one of the key factors in developing sustainable implementation of 21st century skills among university students, the data gathered will help teachers to initiate reflection on their teaching beliefs and instructional practices towards 21st century skills instruction.

In addition, the qualitative findings will provide extensive insights and useful resources for teachers to consider when they intend to develop students' 21st century skills. For instance, the findings included detailed descriptions of teaching scenario, elaborated practice and beliefs and issues of concerns for both in-service teachers and pre-service teachers. In particular, the highlighted discussion on pedagogical reasoning of the selected teachers will benefit teachers to advance their knowledge towards the relationship between teachers' beliefs and instructional practices. The discussion illustrated not only how teachers articulated and justified their teaching actions that influenced by beliefs or practices but also information pertinent to how the EFL

teachers interpreted and cultivated 21st century skills in the EFL classroom. Hence, the qualitative findings offered explicit description of hands-on insights of the EFL teachers' beliefs and instructional practices in developing 21st century skills among students in the English language learning courses.

Moreover, with a high demand in developing 21st century skills among learners, the study is significant to the teacher trainers who are in the university level as the study focused on how teachers showcase 21st century skills instructions in a university setting. Findings and results of the study would aid future professional development, teacher trainings or workshops in conjunction with global educational reform trends to foster 21st century skills among students. The discussion illustrated the extent of reciprocal relationships between EFL teachers' beliefs and instructional practices in hopes of contributing in-depth explanations on the two aspects.

Lastly, the study will benefit future researchers as the study has extended the literature of reciprocal influence of beliefs and practices by investigating the extent of reciprocal relationships among EFL teachers' beliefs and instructional practices for 21st century skills in English language learning courses at a private Japanese university. The study has filled the gap in literature by revealing findings of the understanding of reciprocal relationships between teachers' beliefs and practices in developing 21st century skills with the use of mixed-methods approach. The researcher has presented quantitative data and qualitative data to establish the quality of the investigation.

Operational Definitions

21st century skills: The 21st century skills covered in this study are identified as critical thinking, collaboration, communication, creativity, and innovative, self-direction, global connections, local connections, using technology as a tool for learning (Hixson, Ravitz & Whisman, 2012).

Beliefs: A belief is a proposition which may be consciously or unconsciously held, is evaluative in that it is accepted as true by the individual and is therefore imbued with emotive commitment;

further, this serves as a guide to thought and behaviour. (Borg, 2001, p.186)/ Beliefs refers to ideas that individuals consider to be true; beliefs consist of cognitive and affective dimensions; beliefs influence practice (Skott, 2014)

Teachers' beliefs: Teachers' beliefs are understood to be the interconnected, affective, conceptual, and evaluative perspectives developed about themselves, students, student learning, and methods of instruction, curriculum, and schools as social institutions (Kagan, 1992; Pajares, 1992). The characteristics of teachers' beliefs include implicit or explicit in nature, stability, situated or generalized nature, relationship to knowledge, and functions of beliefs are acting to (1) filter and interpret information, (2) frame a specific problem or task (e.g., lesson planning), and (3) guide immediate action. (Fives & Buehl, 2012). In the context of this study, teachers' beliefs refer to beliefs about self (roles and responsibilities as a teacher), and beliefs in regard to teaching of 21st century skills in the context of English language teaching.

Instructional practices: The instructional practices are recognized as any pedagogical action that emerges from the teaching and learning process, and this may include a wide range of process including, but not limited to, decision-making, instructional strategies and relationship building with students (Buehl & Beck, 2015). In the context of this study, instructional practices refer to the pedagogical action stemming from the EFL teachers' beliefs on how best to develop 21st century skills among the students in the English language courses. (how teaching should be done, what methods are most effective, who is responsible for it, etc.)

English language learning courses: English language learning course refers to the courses that aim to build students' general English language proficiency (or skills-based proficiency) by exposing students to English language learning materials. For instance, courses of general

English communication, English for academic purposes, and English for specific purposes. Courses that are using English for content-based learning or content-based instruction and subject-specific content are not part of this category.

Methodology

The goal of this study was to examine the extent of the reciprocal relationship between EFL teachers' beliefs and their instructional practice in developing students' 21st century skills in English language learning courses at a private Japanese University. Primarily, the study intended to identify and investigate how EFL teachers' beliefs reciprocally influence instructional practices to facilitate the development of 21st century skills among students in the teaching and learning environment. An explanatory sequential mixed methods research design was used in this study with the rationale of using both quantitative and qualitative research and methods to strengthen understanding of the research problem. The following sub-sections provided a detailed description of the research context, research design, Phase 1 quantitative study and Phase 2 qualitative study (including the sampling procedure, instrumentation, data collection, and data analysis), delimitation, and ethical considerations.

Research Context

The context of the research in this section provides background information that is relevant to the study. The current research was conducted at a private Japanese university located in a university community at Tokyo Hachioji, Japan. In Japan, English is considered a foreign language. The researched university consists of eight faculties with more than 7,500 students from both undergraduate and graduate schools and more than 350 full-time faculty members (known as teachers in this context). As an internationalized university, faculty members consist of both foreign professors and local Japanese professors. The eight faculties in the university include Economics; Business Administration; Law; Letters; Education; Science and Engineering; Nursing; International Liberal Arts. There are about over 550 international students from over 45

countries studying in this university. The medium of instructions used at the university involves entirely in Japanese or in English or integrated of both Japanese and English depending on the language set for the curriculum within the course or the faculty. Moreover, English language learning courses are offered as part of the general elective courses under the general education for all undergraduate students in the university. Regardless of the types of English language learning courses students choose, undergraduate students should earn at least six to ten credit hours of certain English courses to graduate from the university.

Research Design

A research design illustrates specific path of procedure or strategy that guide the research inquiry (Cresswell, 2014). In this study, the researcher adopted the mixed methods research design as the strategy for inquiry. Mixed methods research design is both a method and a methodology in which the design aims to collect, analyze, and mixing or integrating both qualitative data and quantitative data at some point of the time within a single study (Ivankova, Creswell, Stick, 2014). Mixed method methodology refers to the integration of philosophical assumptions from positivism and constructivism, data collection, and analysis (Creswell, 2014). The ultimate goal of using mixed methods research design is to gain heightened knowledge and validity from both quantitative results and qualitative results (Schoonenboom & Johnson, 2017). Moreover, past studies have indicated that using one method to investigate teacher beliefs and practices were insufficient to understand why and how the beliefs affect the teaching practices in the teaching environment with only quantitative research approach (Gao, 2014). An approach which promoted by socio-cultural theory that utilizes two types of data and qualitative research driven have been reported frequently to investigate the issues related teacher beliefs and practices (Barcelos & Kalaja, 2011). Hence, mixed-methods research was adopted in this study. In particular, the researcher employed the explanatory sequential mixed methods as to examine the research inquiry.

An explanatory sequential research design consists of two consecutive phases (quantitative study and qualitative study), and aims to explain quantitative results by using qualitative data to explore or connects specific results into more in-depth understanding (Ivankova, Creswell & Stick, 2006). Thus, the outcome of explanatory sequential study is aimed at establishing a more comprehensive understanding of the research inquiry by having two phases (Creswell, 2014; Ivankova, Creswell & Stick, 2006). Additionally, explanatory sequential design consists of two variants: (1) follow-up explanations variant and (2) case-selection variant (Creswell, 2018). Follow-up explanations variant places priority in the quantitative phase as the basis to further explain the quantitative results with the following qualitative study (QUAN → qual). On the contrary, case-selection variant places priority in the qualitative phase to explore on a phenomenon but required an initial quantitative input to purposefully select ideal subjects for study (quan → QUAL) (Creswell & Clark, 2018). Such concept of variants is also known as the core and supplemental components in mixed methods design. The core component is written in capital letter, and supplemental component is in a lowercase letter. With the purpose of this research, the researcher adopted a case-selection variant to purposefully select participants to elaborate the breadth and range of inquiry to enhance the quantitative results. Hence, the sequence and integration of the design were shown as the qualitatively-driven sequential design (quan → QUAL). Qualitative driven mixed method research relies on the research process of constructivist-poststructuralist-critical view in a sense that it recognizes the use of additional quantitative data that will allow benefit to the goal of research study (Schoonenboom, & Johnson, 2017). Consequently, a full data interpretation and discussion in explanatory sequential mixed method design were carried out after the completion of both quantitative analysis and qualitative analysis.

In the quantitative phase of this study, an online survey (Appendix B) was used to collect the data to answer the research question 1. The survey aimed not only to increase overall understanding of how EFL teachers perceive and practice teaching of 21st century skills at

university, but also obtain initial results for participant selection. In the qualitative phase, a case study approach was used to explore and elaborate the extent of reciprocal relationship between EFL teachers' beliefs and instructional practices in developing 21st century skills in research question 2. A case study approach was used in the second phase of the study in order to build in-depth insights on the particular issue and behaviour patterns of the teacher beliefs and practices (Yoshihara, 2012). According to Creswell (2013), the concept of case study research approach is to:

> … explores a real-life, contemporary bounded system (a case) or multiple bounded system (cases) over time, through detailed, in-depth data collection involving multiple sources of information (e.g., observations, interviews, audiovisual material, and documents and reports), and reports a case description and case themes. The unit of analysis … might be multiple cases (a multisite study) or a single case (within-site study) (p.97).

Within case study approach, there are three variations that serve different intentions to study a problem. There are single instrumental case studies, intrinsic case studies and collective or multiple case studies. Single instrumental case study aims to gain the understanding of an issue by studying one case to exhibit an issue. Intrinsic case study focuses on a case that shows unique or unusual situation (e.g., a student who has difficulty in studying). Collective case study selects multiple cases to exhibit an issue from one site or multiple sites. In the context of this study, collective or multiple case studies were used. Four case studies were selected to illustrate participant experience with the phenomena of the research inquiry. The research inquiry here refers to the knowledge of the reciprocal relationship between teachers' beliefs and instructional practices in developing 21st century skills. The following Table 1 illustrates the overall research procedures for the study.

Table 1

Research Procedure

Phase	Procedures	Product
Quantitative Data Collection	• Piloting online questionnaire • Email research invitation to EFL teachers (*n*=56) • Collect data using online Google Form: Adapted questionnaire (see Appendix B)	• 33 responses received • Numeric data • Table, graph, scale score
Quantitative Data Analysis	• Analysis of descriptive and inferential statistics	• Table of descriptive statistics and inferential statistics for the online questionnaire
Connecting; Case Selection; Interview Protocol Modification	• Screen through the full data of the survey result • Purposefully select the participants from the quantitative sample based on sampling criteria • Cross-check qualitative data collection protocols • Pilot interview protocol	• Number of cases (*n*=4) • Piloted Interview Protocol
QUALITATIVE Data Collection	• Contact the four EFL Teachers (*n*=4) • Conduct six to seven semi-structured interviews (within 10-45mins) and three classroom observations • Central phenomena: Teachers' beliefs and instructional practices in developing 21st century skills among students	• Text data (Interview transcriptions, teaching artefacts, field notes)
QUALITATIVE Data Analysis	• Coding and thematic analysis • Within case and across case analysis	• Themes and supporting quotes • Similar and different themes and categories
Integration of the quan and Qual results	• Interpretation and explanation on the results	• Discussion • Educational implications • Recommendations

Note: The procedure above is based upon Ivankova, Creswell and Stick's (2006) visual model for sequential explanatory mixed methods design.

Phase 1 Quantitative Study

Quantitative Sample

The target population in this study involved all full-time and part-time English teachers at the private Japanese University. A probability sampling technique was used to select the participants for Phase 1 quantitative study. Probability sampling is a sampling technique that offers each unit in the target population to have an equal chance of being nominated (Ary, Jacobs, Razavieh & Sorensen, 2009). This method enabled the researcher to generate a sample that was representative of the target population. The parameter sampling was to search the teachers who are teaching English language learning courses at the university in the Fall semester in 2019. In this case, a cluster sampling technique, which is one of the probability samplings, was used to identify the research participants. This technique is suitable as the nature of the population in the university is clustered according to the faculty and school.

The information of the cluster samples such as email, course title and class schedule can be identified in the 2019 Academic Year course catalogue and university portal site. Moreover, the researcher also clarified with the administrator or respective Dean or faculty member to verify the possible research candidates after the IRB approval for the current study. Based on the sampling process, a total of (n=56) EFL teachers were identified from the eight faculties and one School of General Education. Out of 56, there are 31 EFL teachers from the School of General Education and 25 EFL teachers from the different faculties. The reason why some of the faculties have fewer or no EFL teachers was that these faculties loaned teachers from the School of General Education. For instance, the English teachers who are teaching for faculty of Science and Nursing were from the School of General Education. A list of identified samples is shown at Table 2 below.

Table 2

Targeted Population of Phase 1 Study

Subgroup	Frequency
School of General Education	31
Faculty of Economics	6
Faculty of Business	3
Faculty of Law	1
Faculty of Letters	9
Faculty of Education	2
Faculty of Science	0
Faculty of Nursing	0
Faculty of International and Liberal Arts	4
Total	56

A detailed invitation email that consisted an informed consent (shown in appendix F) to participate the survey was sent to the samples. The informed consent included the purposes of the study, time commitment for the survey, anticipated risks, rights and benefits, and followed by a link to the online survey. The informed consent page indicated that by continuing the online questionnaire (Appendix B) represents as an indication of informed consent. In addition, in order to ensure participant has sufficient time to complete the survey and response to the study, the actual survey data collection period was opened from September 12, 2019 to September 30, 2019 (19 days). The first dissemination period of the survey via email was from September 12, 2019 to September 25, 2019 (two weeks). A reminder email was sent out on September 23, 2019 as the response rate in the first period was significantly low. However, the survey was extended until September 30, 2019 due to insufficient required number of responses. The Krejcie and Morgan (1970) and Fowler's (2009) sample size tables were used to determine the minimum sample size for a population of N=56. According to Krejcie and Morgan (1970), a minimum of 47 sample

size was required for a population for this size. As for Fowler's sample size table, a minimum of 49 sample size was required with a confidence level of 95% and margin error on 5%. However, only 33 responses were obtained throughout the data collection period. Thus, the sample size could only be explained using Fowler's table. The responses showed 95% confidence level with a 11.2% margin error.

Last but not least, the participants were self-selected English teachers and identified within two areas from the nine clusters: teachers who are working under the School of General Education and teachers who are working under the faculty. In the School of General Education, EFL teachers can be identified as the teachers who are teaching general English courses that entitled English 1,2,3, and 4, TOIEC/ TOEFL test preparation courses, and these courses are categorized as the general elective courses for the students. On the other hand, the English courses offered in its own faculty, these EFL teachers can be identified as the teachers who are teaching the courses that are associated as general English for communication, English for Specific Purposes (ESP) or English for Academic Purposes (EAP).

Instrument for the Quantitative Phase

The use of survey has been indicated beneficial for social research for researcher to obtain a systematic set and structured of data that allow the results to be comparable (De Vaus, 2016). The online questionnaire (Appendix B) in this study contained a total number of 27 questions, and it was created using an online Google Form. The online questionnaire has four sections: (1) background information (5 questions), (2) teachers' beliefs and practices related to 21st century skills in teaching and learning (17 questions), (3) demographic information (4 questions), and (4) contact information (1 question). The survey link was enclosed in the research participation invitation email. All targeted English language teachers received the email upon obtaining permission from the respective Dean of faculty or Director of the school. The email has stated that taking part in the survey is entirely voluntary with no financial obligations and no

influence on the status of the teacher employment. The online survey takes approximately 20-25 minutes to complete and can be done when convenient during the designated time frame in the data collection period.

The items in the online questionnaire were adapted with reference to literature from Kumaravadivelu (2003); Sun (2017), Hixson (2012) and Ravitz (2014). However, the major focus of the online questionnaire, which is in section two, was a complete adaption of survey that entitled 21st century teaching and learning created by Hixson et al. (2012). This survey was chosen as it showed a significant validity and reliability of the survey, the description of the validity and reliability is stated at below.

21st century teaching and learning survey. This survey is a teacher questionnaire that is available for re-usable in studies related to 21st century teaching and learning. The survey was developed by Hixson et al. (2012) to examine the effect of project-based learning and to measure teachers' perceived ability to teach and assess 21st century skills. The conceptual framework in the survey defined 21st century skills as the following eight skills: critical thinking skills, collaboration skills, communication skills, creativity and innovative skills, self-direction skills, global connections, local connections, using technology as a tool for learning. The survey has eight sub-sections: each sub-section contains two general questions (i.e., practices (Q1) and beliefs (Q2)). In each sub-section (or one skill set), there is a definition of the skill, (Q1) a list of possible teaching practices to develop a 21st century skill (around 5-8 items), and (Q2) questions related to perception towards teaching the 21st century skill (3 items). The survey items for (Q1) are rated by a five-point scale, ranging from one point (*almost never*), two points *(a few times a semester*), three points (*1-3 times per month*), four points (*1-3 times per week*) to five points (*almost daily*); the survey items for (Q2) are rated by five-point scale, ranging from one point (*not really*), two points (*to a minor extent*), three points (*to a moderate extent*), four points (*to a great extent*), to five points (*to a very great extent*). In Q1, the number of items covered in each skill set consists of: Critical thinking skills (6 items); Collaboration skills (6 items);

Communication skills (5 items); Creativity and innovation skills (5 items); Self-directional skills (7 items); Global connections (6 items); Local connections (5 items); Using technology as a tool for learning (8 items). For Q2, there are three items, and these items were asked repeatedly throughout the eight skill sets. Hence, there are 72 items in the survey (48 items for instructional practices and 24 items for beliefs), and the survey should take no more than 15 minutes. The reliability for this questionnaire was stated as "extremely reliable overall measures for each skill (standardized alpha >.90, inter-item correlations >.58)" (Hixson et al., 2012, p.2). The survey items were created by "re-used practice items based on most reliable items from Novais & Gallagher (2010) and in personal communications with Gabriel Novais (2011)" (Hixson et al., 2012, p.2). In addition, the stated content validity was based on a careful review on the existing literature from the Innovative Teaching and Learning study (Shear, Novais, Means, Gallagher, & Langworthy, 2010), Deeper Learning framework (William & Flora Hewlett Foundation, 2010), and Partnership for 21st Century Skills (Hixson et al., 2012, p.1). This survey instrument has also been used recently in several literatures (e.g., Davis, 2018; Ghamrawi, Ghamrawi & Shal, 2017; Nissan, 2016; Rice, 2017; Santos, 2017; Wilcox, Liu, Thall & Howley, 2017). In order to effectively gather data of English language teachers' beliefs and practices in relation to teaching of 21st century skills. The adapted online questionnaire was piloted for face validity, content validity and construct validity with the following experts:

(i) EFL Instructors

(ii) Research Advisor

(iii) Committee Members

The aspect of review involved items, wording, word choices, syntax, and order of the questions. After piloting the online questionnaire and obtaining feedbacks from the experts above, only minimal revisions were made to improve the appropriateness of the survey questions to fit the current research context. For instance, in Section One: background information (i.e., Q1: you are currently teaching at) was amended to "you are a teacher of the". The question 3, "Based on your

beliefs, do you agree with the goals of teaching English in the current days are to…" was amended to "Based on your beliefs, do you agree with the goals of teaching English 'which include'…". The question 4, "Based on your beliefs, what are the important responsibilities as an English teacher? (It can be more than one)" was amended to "Based on your beliefs, what are the 'most' important responsibilities as an English teacher? (It can be more than one). In Section Two, the opened-ended question answer option changed from short answer to paragraph. In Section Three, the option in question 2 "50 and above" was amended to 51 and above.".

Data Collection for the Quantitative Phase

Upon receiving approval from the Institutional Review Board (IRB), the researcher piloted the online questionnaire. The study started with piloting the online questionnaire (in August). The purpose of conducting a pilot study was to assess the feasibility and appropriateness of the data collection procedure that matched the research inquiry as well as to test the instrument that could guide researcher to conduct further refinements if is necessary (Ary, Jacobs, Irvine & Walker, 2018). Once the pilot study and revision on the survey instrument were completed, the online questionnaire was disseminated to the identified participants of the study and to be collected during September 1, 2019 to September 28, 2019. The participants included the identified 56 EFL teachers who are working as an English teacher in the Fall semester of 2019. The online questionnaire aimed to survey the extent to which self-reported 21st century skills instructional practices are demonstrated in the class, and the extent of teachers' beliefs on the development of these skills as well as language-related beliefs. Preliminary contact with participants was made via a detailed invitation email that enclosed explanations of the study/informed consent, including objectives of the study, releasing study results, data collection method/ procedure, selection of the participants, indicated risks and benefits to join the study, statement of confidentiality explained voluntary participation, contact information of the researcher. The link of the online questionnaire was attached in the email. To ensure obtaining

sufficient responses, a reminder email was sent to the participants two weeks before data collection period closes. Once the online questionnaire was completed, the data was automatically stored in a secure Google account.

Data Analysis for the Quantitative Phase

According to Cohen, Manion and Morrison (2007), unlike descriptive statistics that are meant to report what is found based on what was collected, inferential statistics are cater towards making predictions and inferences based on the data collected. For the quantitative analysis, both descriptive and inferential statistics were used to study the extent of the reciprocal relationship between EFL teachers' beliefs and instructional practices to develop students' 21st century skills in the English language learning courses. All data collected from the online questionnaire were first screened through to check as if there were any missing information or responses. The data was key to SSPS. After that, a second round of screening was conducted to check on the key-in information. Once the data entry and screening completed, the researcher computed and analysed the data via descriptive statistics and inferential statistics.

Descriptive statistics in this study were used to summarize the data and generated descriptive measures of central tendency such as the mean, mode and median though bar charts and graphs/ histogram. Subsequently, in order to measure the reciprocal relationship between teachers' beliefs and instructional practices, simple linear regression analysis was used to analyse the extent of this reciprocal influence. Regression analysis was used to measure the nature of the relationship between one or more independent variables and a dependent variable.

Phase 2 Qualitative Study

Qualitative Sample

In the following second phase of the study, the researcher has adopted a non-probability sampling method to select the participants for case study. A purposeful sampling method was

used in Phase 2 to examine the central phenomena of the relationship between EFL teachers' beliefs and instructional practices that support 21st century skills development in students. To identify the potential Phase 2 participants, the last section of the online questionnaire sought respondents' willingness to participate in the second phase of the study and stated the components in the Phase 2 study. The Phase 2 study included the discussion of the survey responses with the researcher, multiple interviews (10-25 minutes [Post-observation] and 30-40 minutes [Pre-observation]), and three classroom observations. The respondents who were willing to participate the second phase of the study has read through the detailed information of the informed consent (see appendix H and I) that included the purpose for the interview and classroom observations, time commitment, anticipated risks, rights and benefits for the participation. The last section of the online questionnaire also stated that by providing personal contact information does not comply to the commitment to participate Phase 2 study as Phase 2 participants were selected from the group of respondents that indicated their own interest in the Phase 2. Subsequently, the researcher used a maximal variation sampling strategy to select the final Phase 2 participants that follow stipulated criteria: (1) participants must willing to offer time for multiple interviews, (2) participants must allow three classroom observations or videotape the classroom teaching practices, (3) participants who show high mean scores in developing the 21st century skills (e.g., an overall of high mean score of the participants in the summation of total means of practices and beliefs items were considered in the selection process). Lastly, as for the number of participants to be selected in this Phase 2 study, previous study has indicated that the common number of participants to be observed or interviewed tend to be around four or five or no more than 10 participants for a case study approach (Creswell & Clark, 2018; Creswell, 2013). Thus, considering the same concern, the sample size this qualitative phase has finalized to four participants.

Instrument for the Qualitative Phase

In order to explain the quantitative data in more depth and to explore in-depth understanding from the participants via case study approach, semi-structured interview protocol and classroom observation guide were developed to answer the second research question. The following sub-sections describe the details of the instruments for Phase 2 study.

Semi-structured interview protocol. The aim of the second phase, qualitative research, was to build a better understanding on why the variables in the survey contributed differently in the quantitative results and to explore the extent of the reciprocal relationship between EFL teachers' beliefs and 21st century teaching and learning practices. The semi-structured interview protocol consisted of 12 open-ended interview questions (see Appendix C) that were adapted from the previous research studies (e.g., Bell, 2010; Calderhead, 1996; Davis, 2018; Ding, Ottenbreit-Leftwich, Lu & Glazewski, 2019; Gandeel, 2016; Hixson, Ravitz & Whisman, 2012; Johnson, 1992; Kumaravadivelu, 2006; Murray, 2005) to explore the research question in detailed. The interview protocol was categorized into three parts: initial interview questions, pre-observation interview questions and post-observation interview questions. Initial interview questions covered (1) background information, (2) influence on beliefs and practices, (3) beliefs about teaching role and teaching English; second interview questions covered (4) beliefs about teaching 21st century skills. Pre-observation interview covers the questions that are important to understand what the researcher is observing during the classroom observation. A closure or a post-observation interview questions covered reflection and rationales of the executed teaching practices on the lesson.

The interview protocol was piloted and reviewed by faculty advisor for necessary amendment in addition of knowing the preliminary quantitative results in the Phase 1. Based on the feedback, necessary revision was made on the interview protocol such as reorganizing the order of the questions, eliminating, rephrasing and merging the some of the questions without changing the focus and content of the questions. For instance, in the modified interview protocol,

the labelling for the sub-headings has been modified to be more direct. The background information has changed to profile of the teacher; beliefs about teaching role and teaching English has changed to beliefs about teaching role and practices towards teaching English. For background information (i.e., teacher educational background/ qualification/ teacher education, teaching experience: How long have you been teaching English? Do you have a preferable language skill to teach? Or do you prefer to teach a particular language skill?) Was changed to "hometown, education background/qualification/teacher education, years of teaching ELT in total, specializations/ interests, recent trainings/ workshops/ conference you have attended, employment position, teacher time table".

The sub-questions influenced by beliefs and practices have been rephrased and merged from several questions to avoid leading answers (i.e., How were you taught English? Any specific methods? Does your experience as learner affect your current teaching practice? How? How would you describe your class? How does this affect your teaching approach? How do you describe your learner attitudes towards studying English?) Was modified to "how would you describe your student motivation and attitudes toward studying English? How does it affect your teaching approach? What are some of the aspects that affect your teaching approach/ practices?" The Overall, the semi-structured interview protocol consisted of five areas of interview questions.

Classroom observation guide. Classroom observation serves as an important element to study the relationship between language teachers' beliefs and practices as observation could help to document the authenticity of teacher thoughts, behaviors, and practices (Gandeel, 2016). Observation is also a valuable data collection strategy to illustrate evidence of the teaching scenario as per what teacher do or how teacher acts in class (Borg, 2018). The classroom observation guide in this study was a semi-structured guide and filled with several other elements that have been added after interviewed with the qualitative participants. The researcher observed the instructional practices including, but not limited to organizations and goals of the lesson,

instructional strategies to cultivate 21st century skills, the dynamic in the teaching process, and relationship building. The guide consists of five columns: time, activity, teacher actions, student actions, and additional notes. There is also general information about the class and classroom observation date that can be filled in at the top and a comment section at the bottom. Furthermore, the observation guide was acting as a field note for researcher to record the teaching scenario happened in the teaching process so that the data can be referred or elicited in the post-interview. Prior to the classroom observation, a pre-classroom observation interview was conducted. Last but not least, the observation data in this study served as an important instrument to triangulate with the initial interview, and pre and post interviews. The researcher role in conducting the classroom observation was a non-participant role in which the researcher did not interact with the students in the class.

Data Collection for the Qualitative Phase

The objective of the qualitative phase was to explore and interpret the statistical results obtained in the first, quantitative phase (Creswell, 2014). The intention was also to further develop a better understanding of the reported beliefs and practices from the surveyed quantitative results. Based on the sampling procedure, four participants were selected from the quantitative sample to follow-up Phase 1 study. By using a case study approach with the adoption of interviews and classroom observations, Phase 2 data collection collected information pertinent to elaborate in-depth explanations of the teachers' beliefs and practices that support 21st century teaching and learning. The content in the initial semi-structured interview protocol was modified according to the analysis of quantitative results. In the second phase, the qualitative data collection involved a series of interviews (semi-structured interviews), and three classroom observations. The interviews were conducted in each of the pre- and post-classroom observations. The length of the interview ranged from 10-25 minutes for post-observational interview, whereas 30-40 minutes for pre-observational interview. Depending on the teachers'

responses in how they offer views and opinions about the topic, more follow-up questions or time may be added with mutual agreement. Each interview was audiotaped and transcribed into text data. Moreover, the data collection for the class observation included audio-recording and field notes. As suggested, if participants are not comfortable with the fact that the researcher is observing the actual class or if teachers are afraid the observation may disturb the classroom atmosphere, participants can videotape the class and share the data with the researcher for analysis. However, all teachers have agreed to allow the researcher to conduct classroom observation. Last but not least, the audio recording data was used in case the researcher misses to record the notes or wanted to clarify the notes to the teaching situation. Hence, the audio-recording were transcribed to written data, and they served as a supplementary data that does not required thorough analysis.

Data Analysis for the Qualitative Phase

Qualitative analysis requires researcher to transcribe and organize the data in order to begin the analysis. In this study, case studies analysis approach was used to analyse the four individual case studies. The recordings of the interviews were transcribed along the data collection period, and the researcher used qualitative research tool, QDA Miner Lite, to manage the interview transcripts. A thematic analysis was used to analyse the interview transcripts and observation field notes at two levels: within-case analysis and cross-case analysis. In brief, within-case analysis helps to establish the firm understanding on an individual case whereas cross-case analysis builds richer understanding by compare and contrast on the relationship between beliefs and practices among multiple cases (Yin, 2003). For each case, researcher first analysed the themes that emerged from the text data to develop in-depth understanding of EFL teachers' beliefs and instructional practices for 21st century skills. Afterwards, for the themes that emerged, the researcher performed a cross-case analysis to look at the similarities and differences among multiple cases. During the cross-case analysis, the intention was to examine

closely on the relationship between beliefs and practices and if there is any correlation in any of the variables. The classroom observation was inductively analysed in assisting the interview analysis.

Delimitations

There are several delimitations that shape the direction of this study. Given the scope of this study was to focus on English language teachers, teachers who teach content-based courses using English as a medium of instruction or content-based courses that teaches English as a subject-specific content (i.e. English literature) were not included in this study. Even though studying teachers of other areas are important, the ways of teaching content-courses and language proficiency courses are very much different which could influence the results of the current study. As such, this research was delimited to offer an explicit understanding of the current practices in the English language learning courses in EFL setting.

In addition, the classroom observation data was not used as a means to evaluate the extent to which beliefs and practices were enacted or shown in the teaching situation. Instead, this data served as a triangulation approach to further study the pedagogical rationales offered in the interviews and to complement the results obtained in the survey. When the qualitative data that investigated in-depth understanding of teachers' beliefs and practices did not reflect the actual teaching behaviour, the potential vulnerability of the data could be accounted and minimized through multiple interviews and classroom observations. However, further studies that use classroom observation data for detailed analysis are encouraged.

Moreover, the biasness of selecting teachers of high frequency usage of instructional practices in developing 21st century skills among students was explained in the Phase 2 data collection method. Last but not least, while the results of this study could not generalize and represent the understanding for the English language teaching context in the Japanese higher Education, the results offered meaningful and in-depth insights that could suggests possible

actions for teachers who shared a similar EFL context to plan their instructional strategies to develop students' 21st century skills in language teaching classroom.

Ethical Considerations

Prior to conduct the study, a research proposal was sent to the Institutional Review Board (IRB) of the university for review. Data collection has begun upon receiving IRB approval. The preliminary contact with the participants was via an invitation email that provided full details of research with an attached of informed consent in the survey of quantitative study. In this study, there were five informed consent letters: pilot study for online questionnaire (Appendix E), online questionnaire (Appendix F), pilot study for interview protocol (Appendix G), semi-structured interview (Appendix H), classroom observation (Appendix I). To ensure the confidentiality of respondents' identity, pseudonyms were used in the two phases of study. A letter (see Appendix A) that sought permission to send online questionnaire to survey teacher was sent to each faculty Dean and Director of the School of General Education prior to conduct the study and upon IRB approval. This letter was sent out in the beginning of September 2019. All the participants had received an email to join participation for the study. Participation for the research study was entirely on voluntary basis, and by any chances, participants are allowed to withdraw their participations. All data collected was stored in the secure-password Google account that restricted accessible to only the researcher until July 2029 (ten-year period) and data will be destroyed.

Results and Findings

To reiterate, the current study examined the reciprocal relationship between EFL teachers' beliefs and their instructional practices in developing 21st century skills among students in the English language learning courses at a private Japanese University. An explanatory sequential mixed methods research design was used to investigate the understanding of the research problem. Two research questions guided the discussion:

1. What is the relationship between teachers' beliefs and instructional practices in developing students' 21st century skills amongst EFL teachers?
    a. To what extent do EFL teachers perceive development of 21st century skills among students through their use of instructional practices?
        i. Null hypothesis (H01): There is no significant relationship between teachers' beliefs and the frequency use of instructional practices to develop students' 21st century skills.
        ii. Null hypothesis (H02): Teachers' beliefs do not significantly predict the frequency use of instructional practices to develop students' 21st century skills.
3. How do the EFL teachers' explanations of their teachers' beliefs and instructional practices relate to their actual classroom practice?
    a. What beliefs do the teachers hold regarding: teaching, role and responsibilities as an English teacher, goals of teaching English, influences on teacher beliefs and practices, teaching of 21st century skills?
    b. Which 21st skills instructional practices are observed in the classroom observations and how were they taught?

The results and findings of this study were organized into two major parts to answer each research question. The overleaf sections presented Phase 1 quantitative results and Phase 2 qualitative case study findings. The quantitative results are based on the responses obtained from the online questionnaire whereas the qualitative findings are based on the multiple semi-structured interviews and classroom observations of the four selected participants.

Phase 1 Quantitative Results

The purpose of the Phase 1 quantitative study was to answer research question 1 by means of an online questionnaire. Research question 1 examined the relationship between

teachers' beliefs and instructional practices in developing students' 21st century skills among 33 EFL teachers. The online questionnaire was administrated from mid-September to early October 2019. The questionnaire consisted of four sections: (1) background information, (2) teachers' beliefs and practices related to 21st century skills in teaching and learning, (3) demographic data, and (4) contact information.

The online questionnaire consisted of both closed-ended and opened-ended questions. The results of the online questionnaire were illustrated through both descriptive and inferential statistics. First, the results present the descriptive statistics of the survey including survey sample and survey response rate, demographics of the respondents, background information related to goals of teaching English, responsibilities as an English teacher, roles that best describe teachers' roles in the classroom, and teachers' beliefs and instructional practices in developing the 21st century skills. Second, the result illustrates the inferential statistics to show the correlation between teachers' beliefs and instructional practices in developing 21st century skills.

Survey Sample and Survey Response Rate

Table 3 presents the list of the targeted respondents (population) and the survey sample in this study. The targeted respondents were identified from the university academic year course catalogue who are teaching any English language learning related courses. The selection involved all full-time and part-time English teachers at the private Japanese University. Two reminder emails were sent to the respondents and a week of further extension was necessary in an effort to increase the response rate. Of all the 56 targeted respondents who received the invitation emails, a total number of 33 responses were received during the data collection period with an overall 58.9% response rate. The sample size was justified on a 95 % of confidence level and 11.2% of margin error. The majority of the samples were from the School for General Education with 18 responses or equivalent of 54.5% from the total Phase 1 sample size.

Table 3

Population and Sample

Subgroup	Targeted Population (*N*= 56)	Frequency of Phase 1 Sample (*n*=33)	Percent (*n*=33) 100%
School of General Education	31	18	54.5
Faculty of Economics	6	2	6.1
Faculty of Business Administration	3	3	9.1
Faculty of Law	1	1	3.0
Faculty of Letters	9	4	12.1
Faculty of Education	2	1	3.0
Faculty of International Liberal Arts	4	4	12.1

Demographics of the Respondents

As shown in Table 4, among the total 33 responses received, 14 respondents (42.4%) were teaching General English, whereas 19 respondents (57.6%) were teaching Departmental English. The gender of the English teachers consisted of 8 females and 25 males. The highest percentage of age group was from 51 and above and with an equivalent of 45.5% of the total responses. 24 out of 33 responses had at least a master's degree, and the remaining nine responses have a PHD. 22 out of 33 responses have more than 15 years of teaching experience in English language teaching.

Table 4

Demographic of the Respondents

Categories	Frequency (*n*=33)	Percent (100%)
Types of courses		
General English	14	42.4
Departmental English	19	57.6
Gender		
Female	8	24.2
Male	25	75.8
Age		
20-25	3	9.1
26-30	3	9.1
31-35	2	6.1
36-40	4	12.1
41-45	2	6.1
46-50	4	12.1
51 and above	15	45.5
Highest academic qualification		
Bachelor's degree	0	0.0
Master's degree	24	72.7
Doctorate degree	9	27.3
Years of teaching ELT (years)		
< 1	3	9.1
1-3	2	6.1
4-6	3	9.1
10-12	2	6.1
13-15	1	3.0
>15	22	66.7

Background on Respondents' Beliefs Towards the Goals of Teaching English

To develop a general understanding of the teachers' beliefs towards English language teaching, the respondents were asked to indicate whether they agree on the three stated goals relevant to the English language teaching. As shown in Table 5, when asked about their beliefs on the goals of teaching English, the agreeable goals 'develop knowledge of the language skills' (78%) and 'develop competent language users' (81%) were the two most salient goals. In addition to the three given goals, other purposes were suggested by some of the respondents, such as developing life-long learning skills, critical thinking skills, and learner's autonomy.

Table 5

Goals of Teaching English

Goals	Frequency (*n*=33)	Percent of cases (%)
Develop knowledge of the language skills (in reading, speaking, writing, listening, and grammar)	26	78
Foster a sense of social responsibility in students	14	42
Develop competent language user	27	81
Other	9	27
- Develop skills for life (whether social, organizational, technical, self-directed learning)	1	
- Empower students in their L2 use	1	
- Develop critical thinking skills	2	
- Use English as a tool to support life-long learning	1	
- Foster learner autonomy	2	
- Help students fully develop as a human being	1	

Background on Respondents' Beliefs Towards the Most Important Responsibilities as an English Teacher

Next, the background information asked respondents based on their teachers' beliefs, what were the most important responsibilities as an English teacher? There were ten statements given as part of the option in this question. The top five responsibilities that most teachers agreed with, in frequency order, were "maximize learning opportunities" (26 out of 33), "promote learner autonomy" (24 out of 33), "integrate language skills" (22 out of 33), "activate self-discovery (utilize learning and communication strategies)" (21 out of 33), "engage learners with different strategies and ways to learn and use the language" (20 out of 33), as shown at Table 6.

Table 6

Most important responsibilities as an English Teacher

Responsibilities	Frequency (*n*=33)	Percent of cases (%)
Maximize learning opportunities	26	78.8
Facilitate negotiated interaction	19	57.6
Promote learner autonomy	24	72.7
Foster language awareness (tolerant of learner errors)	15	45.5
Activate self-discovery (utilize learning and communication strategies)	21	63.6
Contextualize linguistic input	10	30.3
Integrate language skills	22	66.7
Ensure social relevance	10	30.3
Raise cultural consciousness (in goal, purpose of teaching / learning)	19	57.6
Engage learners with different strategies and ways to learn and use the language	20	60.6

Background on Respondents' Beliefs Towards Their Roles in the Classroom

Most teachers take on a variety of roles within the classroom, respondents were asked to which roles best describe their teaching roles in the classroom. There were eight roles given in the option for this question. As shown at Table 7, the two highest frequencies of the teacher roles reported by the respondents were 'organizer' (26 out of 33) and followed by 'resource' (19 out of 33).

Table 7

Teacher Roles in classroom

Roles	Phase 1 Sample (*n*=33)	Percent of cases (%)
Controller	5	15.2
Assessor	12	36.4
Organizer	26	78.8
Prompter	17	51.5
Participant	8	24.2
Resource	19	57.6
Tutor	9	27.3
Observer	9	27.3
Other (Facilitator)	7	21.2

Results of Teachers' Beliefs and Instructional Practices in Developing 21st Century Skills

This section reports the result of section two in the survey that measured the extent of teachers' beliefs and instructional practice in developing students' 21st century skills, and the section consisted of eight sub-sections. Each sub-section has two questions: (1) the possible use of instructional practice that helps students to develop a 21st century skill, and (2) agreement on the three statements (i.e., teacher attempts in teaching the skill, teacher belief that most students have learned the skill, and their perceived ability to assess the skill). Of all the 72 items in section two, 48 items were the possible instructional practices and 24 items were related to the teachers' beliefs. The survey items in (Q1) were measured by a five-point Likert scale, ranging from one point (almost never), two points (a few times a semester), three points (1-3 times per month), and four points (1-3 times per week) to five points (almost daily) for (Q1). Similarly, the survey items for (Q2) are also rated by five-point Likert scale, ranging from one point (not really), two points

(to a minor extent), three points (to a moderate extent), four points (to a great extent), to five points (to a very great extent). The following paragraphs report the result on a basis of each 21st century skill.

In the first sub-section that concerns critical thinking skills, the results in Table 8 show a majority of the teachers believed they have moderately addressed critical thinking skills with an

Table 8

Descriptive Statistics for Critical Thinking Skills

Questions/ Items	Phase 1 Sample (*n*=33)	
	M	*SD*
1. In your teaching of your TARGET CLASS, how often have you asked students to do the following		
a. Compare information from different sources before completing a task or assignment?	2.76	1.275
b. Draw their own conclusions based on analysis of numbers, facts, or relevant information?	3.03	1.075
c. Summarize or create their own interpretation of what they have read or been taught?	3.64	0.962
d. Analyze competing arguments, perspectives or solutions to a problem?	2.94	1.029
e. Develop a persuasive argument based on supporting evidence or reasoning?	2.88	1.053
f. Try to solve complex problems or answer questions that have no single correct solution or answer?	2.91	1.042
	Average = 3.03	
2. To what extent do you agree with these statements about your TARGET CLASS?		
a. I have tried to develop students' critical thinking skills	3.76	1.001
b. Most students have learned critical thinking skills while in my class	2.94	0.788
c. I have been able to effectively assess students' critical thinking skills	2.61	0.998
	Average = 3.10	

average mean score of 3.10. In contrast, the average mean score of all six examined instructional practices was 3.03. The average mean scores show a connection between teachers' beliefs and their instructional practices in developing the skill as the gap between the two mean scores was only 0.9. In terms of perception questions, teachers perceived having taught students' critical thinking skills (M = 3.76, SD = 1.001) was the highest among the three questions, and most students in the class have acquired critical thinking skills close to a moderate great extent (M = 2.94, SD = .788). Yet, teachers' ability to effectively assess students' critical thinking skills was reported as the lowest (M = 2.61, SD = .988). On the practice level, the mean score value for all six examined instructional practices was beyond an average of 2.5 out of the 5-point Likert scale. Most teachers seemed to effectively ask students to summarize or create their own interpretation of what they have read or been taught (M = 3.64, SD = .962), to draw their own conclusions based on analysis of numbers, facts, or relevant information (M = 3.03, SD = 1.075). However, among the six examined practices, the least practiced instructional practice was asking students to compare information from different sources before completing a task or assignment (M = 2.76, SD = 1.275).

In terms of asking students to work effectively and respectfully together towards improving their collaboration skills, Table 9 shows the average mean score for beliefs-related items was 3.53, whereas for practices-related items was 3.26. The result indicates that teachers' beliefs seemed to echo their instructional practices as the average mean scores show a close similarity. For perception wise, there was an emphasis on the extent of teacher effort in thriving the development of students' collaboration skills (M = 4.03, SD = .918), and they perceived most students have learned collaboration skills (M = 3.58, SD =.936). Similar to critical thinking skills, teachers' ability to assess the collaboration skill indicated as the lowest mean compared to the other two beliefs questions (M = 2.97, SD = .984). In terms of practices, the highest mean score among the six examined practices was asking students to work in pairs or small groups to complete a task together with a mean score of 4.42 that indicates the frequency use of more than

1-3 times per week in class. The rest of the five practices were similar to the practices in critical thinking skills in which the average mean score was beyond 2.5 on a 5-point Likert scale. However, the least developed practice was asking students to work with other students to set goals and create a plan for their team (M = 2.79, SD = 1.193).

Table 9

Descriptive Statistics for Collaboration Skills

Questions/ Items	Phase 1 Sample (n=33)	
	M	*SD*
1. In your teaching of your TARGET CLASS, how often have you asked students to do the following		
a. Work in pairs or small groups to complete a task together?	4.42	0.708
b. Work with other students to set goals and create a plan for their team?	2.79	1.193
c. Create joint products using contributions from each student?	3.03	1.185
d. Present their group work to the class, teacher or others?	3.09	1.308
e. Work as a team to incorporate feedback on group tasks or products?	2.82	1.211
f. Give feedback to peers or assess other students' work	3.39	1.197
	Average = 3.26	
2. To what extent do you agree with these statements about your TARGET CLASS?		
a. I have tried to develop students' collaboration skills	4.03	0.918
b. Most students have learned collaboration skills while in my class	3.58	0.936
c. I have been able to effectively assess students' collaboration skills	2.97	0.984
	Average = 3.53	

In terms of communication skills, Table 10 shows a noticeable wide variation on the average mean score in between teachers' beliefs and instructional practices in developing the skills. The average mean score for beliefs-related items was 3.80, and 2.78 for practices-related items. This result shows nearly a 1-point gap between the two categories. Numerically, the gap

Table 10

Descriptive Statistics for Communication Skills

Questions/ Items	Phase 1 Sample (n=33)	
	M	*SD*
1. In your teaching of your TARGET CLASS, how often have you asked students to do the following		
a. Structure data for use in written products or oral presentations (e.g., creating charts, tables or graphs)?	2.67	1.339
b. Convey their ideas using media other than a written paper (e.g., posters, video, blogs, etc.)	2.45	1.301
c. Prepare and deliver an oral presentation to the teacher or others?	2.91	1.182
d. Answer questions in front of an audience?	3.24	1.173
e. Decide how they will present their work or demonstrate their learning?	2.61	1.321
	Average = 2.78	
2. To what extent do you agree with these statements about your TARGET CLASS?		
a. I have tried to develop students' communication skills	4.33	0.924
b. Most students have learned communication skills while in my class	3.73	0.944
c. I have been able to effectively assess students' communication skills	3.36	0.822
	Average = 3.80	

implies inconsistency between what teachers believe in and the practices they have covered in developing communication skills. In addition, unlike the pattern of the average mean score in the two skills above, 80% of the average mean score of instructional practices in this subsection did

not exceed a 3-point scale. The least practiced instructional practice was asking students to convey their ideas using media other than a written paper (e.g., posters, video, blogs, etc.) (*M* = 2.45, *SD* = 1.182). Meanwhile, the highest and the only item that exceeds the 3-point scale was encouraging students to answer questions in front of an audience (*M* = 3.24, *SD* = 1.173). However, despite showing a low usage of instructional practices for such skills, teachers believed they have thrived on developing students' communication skills (*M* = 4.33, *SD* = .924), and most students flourished in learning the skill (*M* = 3.73, *SD* = .944). Teachers were able to assess students' communication skills (*M* = 3.36, .822).

Table 11 presents the subsection of creativity and innovation skills; the average mean score inferred teachers' emphasis on this skill was less important compared to the skills of critical thinking, collaboration and communication. Overall, the average mean score in developing this skill was 2.87 based on teachers' beliefs and 2.75 based on teacher use of instructional practices. In comparison with the three skills before, teachers' perceived attempt in developing students' creativity and innovation was significantly lower (*M* = 3.18, *SD* = 1.014). Meanwhile, despite believing most students have learned this skill (*M* = 2.85, *SD* = .906), yet teacher reported least extent in assessing this skill (*M* = 2.58, *SD* = .902). On the bright side, teachers somehow indicated significant used of practice in asking students to do idea creation techniques such as brainstorming or concept mapping (*M* = 3.24, *SD* = .936), to use of their own ideas about how to confront a problem or question. (*M* = 3.15, *SD* = .795). On the other hand, teachers were least likely to ask students to create an original product or performance to express their ideas (*M*=2.24, *SD* = 1.20), to invent a solution to a complex, open-ended question or problem (*M*= 2.48, *SD*, .972), and to test out different ideas and work to improve them (*M* = 2.61, *SD*, 1.08).

Table 11

Descriptive Statistics for Creativity and Innovation Skills

Questions/ Items	Phase 1 Sample (*n*=33)	
	M	*SD*
1. In your teaching of your TARGET CLASS, how often have you asked students to do the following		
a. Use idea creation techniques such as brainstorming or concept mapping?	3.24	0.936
b. Generate their own ideas about how to confront a problem or question?	3.15	0.795
c. Test out different ideas and work to improve them?	2.61	1.088
d. Invent a solution to a complex, open-ended question or problem?	2.48	0.972
e. Create an original product or performance to express their ideas?	2.24	1.200
	Average = 2.75	
2. To what extent do you agree with these statements about your TARGET CLASS?		
a. I have tried to develop students' creativity and innovation skills	3.18	1.014
b. Most students have learned creativity and innovation skills while in my class	2.85	0.906
c. I have been able to effectively assess students' creativity and innovation skills	2.58	0.902
	Average = 2.87	

In terms of self-direction skills, Table 12 shows a fascinating result in the average mean score between teachers' beliefs and instructional practices in developing the skill. The average mean score for both categories were the same value at 3.06. At the teacher beliefs, teachers' attempt in developing self-direction skill was considered great appreciation (M = 3.52, SD = 1.004) and the beliefs towards student acquisition on this skill was slightly lower than teachers' attempt (M = 2.91, SD = .947). Similarly, the perceived assessment of this skill was the bottom of the three (M = 2.76, SD = 1.001). In terms of practice, the two highest mean scores were asking

students to choose what examples to study or resources to use (*M* = 3.21, *SD* = 1.11) and use peer, teacher, or expert feedback to revise their work (*M* = 3.21, *SD* =1.166).

Table 12

Descriptive Statistics for Self-Direction Skills

Questions/ Items	Phase 1 Sample (*n*=33)	
	M	*SD*
1. In your teaching of your TARGET CLASS, how often have you asked students to do the following		
a. Take initiative when confronted with a difficult problem or question?	3.09	1.128
b. Choose their own topics of learning or questions to pursue?	3.15	0.972
c. Plan the steps they will take to accomplish a complex task?	2.94	1.116
d. Choose for themselves what examples to study or resources to use?	3.21	1.111
e. Monitor their own progress towards completion of a complex task and modify their work accordingly?	2.91	1.308
f. Use specific criteria to assess the quality of their work before it is completed?	2.94	1.273
g. Use peer, teacher or expert feedback to revise their work?	3.21	1.166
	Average = 3.06	
2. To what extent do you agree with these statements about your TARGET CLASS?		
a. I have tried to develop students' self-direction skills	3.52	1.004
b. Most students have learned self-direction skills while in my class	2.91	0.947
c. I have been able to effectively assess students' self-direction skills	2.76	1.001
	Average = 3.06	

Then, it followed by asking students to choose their own topics of learning or questions to pursue (*M* =3.15, *SD* = .972), and asking students to take initiative when confronted with a difficult

problem or question (*M* = 3.09, *SD* =1.128). At last, the least frequent use of instructional practice was asking students to monitor their own progress towards completion of a complex task and modify their work accordingly (*M* = 2.91, *SD* = 1.308).

In terms of asking students to be able to understand global issues highlighted in global connections skills, Table 13 shows an unexpected result even though the average mean score of the skill was rather low compared to the rest of the sub-sections above. The surprising fact was

Table 13

Descriptive Statistics for Global Connection Skills

Questions/ Items	Phase 1 Sample (*n*=33)	
	M	*SD*
1. In your teaching of your TARGET CLASS, how often have you asked students to do the following		
a. Study information about other countries or cultures?	3.21	1.193
b. Use information or ideas that come from people in other countries or cultures?	3.18	1.185
c. Discuss issues related to global interdependency (for example, global environment trends, global market economy)?	3.06	1.321
d. Understand the life experiences of people in cultures besides their own?	3.03	1.262
e. Study the geography of distant countries?	1.91	1.128
f. Reflect on how their own experiences and local issues are connected to global issues?	2.79	1.139
	Average = 2.86	
2. To what extent do you agree with these statements about your TARGET CLASS?		
a. I have tried to develop students' skills in making global connections	3.12	1.341
b. Most students have learned to make global connections while in my class	2.85	1.202
c. I have been able to effectively assess students' skills in making global connections	2.36	1.168
	Average = 2.78	

the average mean score of the frequency use of instructional practices in developing this skill (*M* = 2.86) was minimally higher than the average mean score in the teachers' beliefs (*M*=2.78) at 0.08 point. The result expresses teachers' use of instructional practices was slightly more than belief in development. Moreover, most teachers spent considerable amount of effort in asking students to study information about other countries or cultures (*M* = 3.21, *SD* =1.193), use information or ideas that come from people in other countries or cultures (*M* = 3.18, *SD* =1.18), discuss issues related to global interdependency (for example, global environment trends, global market economy) (*M* = 3.06, *SD* = 1.3210), and understand the life experiences of people in cultures besides their own (*M* = 3.03, *SD* = 1.262). However, asking students to study the geography of distant countries (*M* = 1.92, *SD* = 1.128) had by far the lowest average mean score among the six investigated instructional practices. A 1-point scale indicates teachers have rarely use the instructional practice.

Table 14 shows the extent of teachers' beliefs and instructional practices for developing local connections skills. In comparison with the rest of the 21st century skills, the local connections skill has the lowest average mean score for both frequency use of instructional practices and perceptions of teachers' beliefs. However, an interesting fact was the average mean score for the frequency use of instructional practices was a little higher than the extent of teachers' beliefs on 1.99 and 1.90 respectively. At the notion of instructional practice, teachers only paid minor extent on asking students to investigate topics or issues that are relevant to their family or community (*M* = 2.36, *SD* = 1.113) and apply what they are learning to local situations, issues or problems (*M* = 2.27, *SD* = 1.126). Moreover, the majority of the teachers admitted that they almost never ask students to talk to one or more members of the community about a class project or activity (*M*= 1.61, *SD* = .966), analyze how different stakeholder groups or community members view an issue (*M* = 1.88, *SD* = .992), respond to a question or task in a way that weighs the concerns of different community members or groups (*M* = 1.85, *SD* = 1.004).

Table 14

Descriptive Statistics for Local Connection Skills

Questions/ Items	Phase 1 Sample (*n*=33)	
	M	*SD*
1. In your teaching of your TARGET CLASS, how often have you asked students to do the following		
a. Investigate topics or issues that are relevant to their family or community?	2.36	1.113
b. Apply what they are learning to local situations, issues or problems?	2.27	1.126
c. Talk to one or more members of the community about a class project or activity?	1.61	0.966
d. Analyze how different stakeholder groups or community members view an issue?	1.88	0.992
e. Respond to a question or task in a way that weighs the concerns of different community members or groups?	1.85	1.004
	Average = 1.99	
2. To what extent do you agree with these statements about your TARGET CLASS?		
a. I have tried to develop students' skills in making local connections	2.06	1.088
b. Most students have learned to make local connections while in my class	1.85	0.939
c. I have been able to effectively assess students' skills in making local connections	1.79	0.992
	Average = 1.90	

The following Table 15 shows the results regarding the 21st century skill of using technology as a tool for learning. The average mean score for both instructional practices and teachers' beliefs was the second-lowest among the eight skills at 2.48 for instructional practice and 2.45 for teachers' beliefs. However, both mean values differed only with a few decimals. The average mean score for the instructional practice was slightly higher than the average mean score for teachers' beliefs. At the perception level, most teachers have only done a minor extent in attempting to develop the skill in students (*M* = 2.58, *SD* 1.173), believing students have learned

Table 15

Descriptive Statistics for Using Technology as a Tool for Learning

Questions/ Items	Phase 1 Sample (*n*=33)	
	M	*SD*
1. In your teaching of your TARGET CLASS, how often have you asked students to do the following		
a. Use technology or the Internet for self-instruction (e.g., Kahn Academy or other videos, tutorials, self-instructional websites, etc.)?	3.18	1.334
b. Select appropriate technology tools or resources for completing a task?	2.73	1.153
c. Evaluate the credibility and relevance of online resources?	2.48	1.202
d. Use technology to analyze information (e.g., databases, spreadsheets, graphic programs, etc.)?	1.88	1.219
e. Use technology to help them share information (e.g., multi-media presentations using sound or video, presentation software, blogs, podcasts, etc.)?	2.55	1.371
f. Use technology to support team work or collaboration (e.g., shared work spaces, email exchanges, giving and receiving feedback, etc.)?	2.73	1.442
g. Use technology to interact directly with experts or members of local/global communities?	1.70	1.185
h. Use technology to keep track of their work on extended tasks or assignments?	2.61	1.435
	Average = 2.48	
2. To what extent do you agree with these statements about your TARGET CLASS?		
a. I have tried to develop students' skills in using technology as a tool for learning	2.58	1.173
b. Most students have learned to use technology as a tool for learning while in my class	2.48	1.093
c. I have been able to effectively assess students' skills in using technology for learning	2.30	1.287
	Average = 2.45	

this skill (*M* = 2.48, *SD* = 1.093), and effectively assess students' use of technology skill (*M*=2.30, *SD* = 1.287). In addition, only one practice, the use of technology or the Internet for self-instruction (e.g., Khan Academy or other videos, tutorials, self-instructional websites, etc.) (*M* = 3.18, *SD* = 1.334), was significantly emphasized in this subsection. Also, this practice was the only average mean score that is higher than a 3-point scale. Lastly, students were infrequently taught to use technology to interact directly with experts or members of local/global communities (*M* = 1.70, *SD* = 1.185), and to use technology to analyze information (e.g., databases, spreadsheets, graphic programs, etc.) (*M* = 1.88, *SD* = 1 .219).

Subsequently, Figure 4 below shows an overall picture of all the results in this section. In a nutshell, the summation of all 48 instructional practices employed by the 33 respondents (or teachers) in helping students to develop 21st century skills show an overall average mean score of 2.77 out of a 5-point scale (the green line). This scale conveyed teachers' application of 21st century instructional practices is established close to 1-3 times per month. On the contrary, the summation of the average mean score of teachers' beliefs (based on the agreement of the three items) from all of the eight skills is somewhat higher than the rate for frequency use of instructional practices. The overall mean score for teachers' beliefs was 2.93 (the red line). This scale revealed a moderate extent of teachers' attempt to teach, assess, and students have acquired the 21st century skills.

Consequently, as Figure 4 below advocates, three patterns are seen based on the overall mean value: (1) IP is higher than TB, (2) TB is higher than IP, and (3) equal TB and IP. The 4Cs skills (critical thinking, collaboration, communication, creativity and innovation) shared the pattern of the first tendency. This pattern was possibly signifying teachers' beliefs as an antecedent for their behavior in using the instructional practices to develop 21st century skills among learners. As such, a high value in TB potentially result in high value in IP. Nevertheless, this concept does not apply to the sub-section of communication skill. Despite showing the highest value in TB compared to three skills in this pattern, there was a gap in their thinking of

using the instructional practices. On the other side, global connections, local connections, and using technology as a tool showed the pattern of the second tendency: TB is higher than IP. Finally, the third pattern was found in the self-direction skill. This pattern yielded an ideal situation in which the value of both IP and TB was on the same amount.

Furthermore, based on Figure 4, results can be concluded that teachers spent more effort in developing critical thinking skills, collaboration skills, and self-direction skills compared to the other five skills as these skills achieved a 3-point scale in both TB and IP. On the contrary, the two 21st century skills among all skills that received the least attention were the local connections and using technology as a tool for learning.

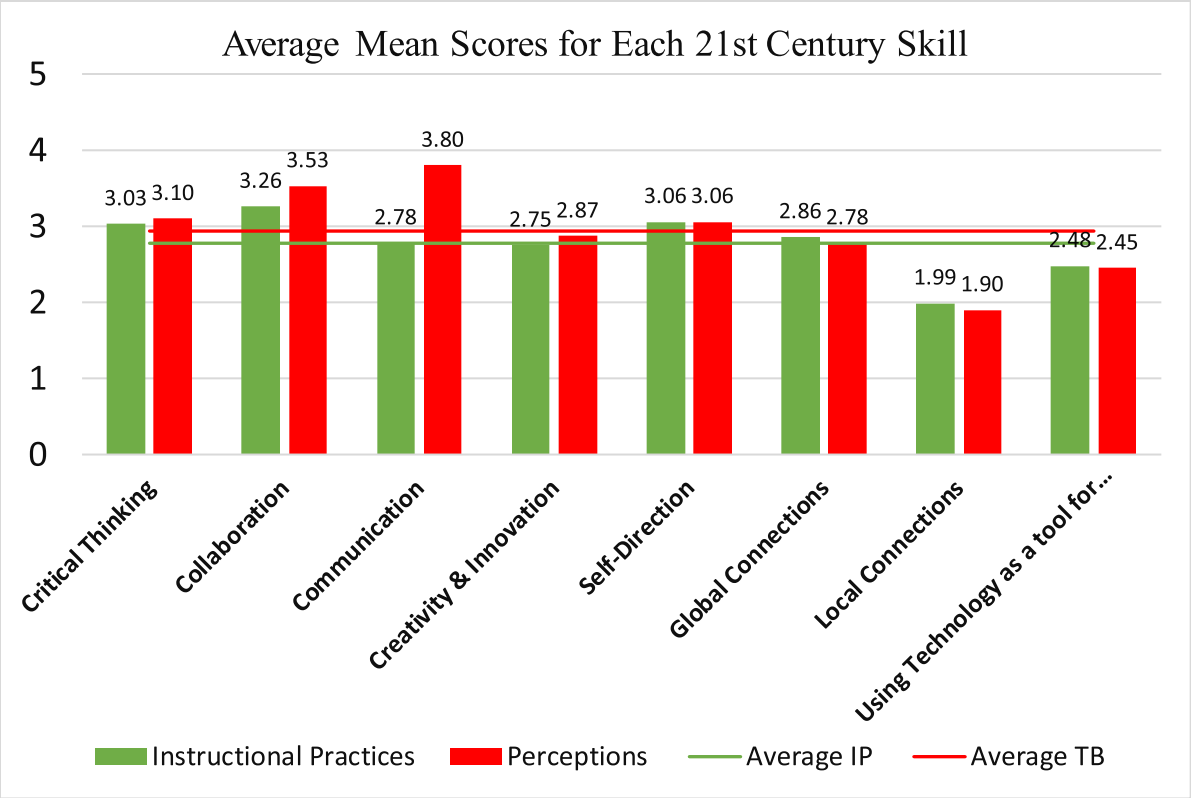

Figure 4. Average Mean Scores for Each 21st Century Skill

Table 16 illustrates the top 10 highest average mean score of all 48 instructional practices that the teachers perceived to be frequently used in their classroom practices. On the other hand, Table 17 shows the tenth lowest average mean score of all 48 instructional practices. This finding explains teachers were less likely to use these practices in their classroom to develop the 21st century skills.

Table 16

Top 10 Highest Average Mean Score of all 48 Instructional Practices

Questions/ Items	Phase 1 Sample (*n*=33)	
	M	*SD*
1. COLLABORATION_1a: Work in pairs or small groups to complete a task together?	4.42	0.708
2. CRITICAL THINKING_1c: Summarize or create their own interpretation of what they have read or been taught?	3.64	0.962
3. COLLABORATION_1f: Give feedback to peers or assess other students' work?	3.39	1.197
4. COMMUNICATION_1d: Answer questions in front of an audience?	3.24	1.173
5. CREATIVITY AND INNOVATION_1a: Use idea creation techniques such as brainstorming or concept mapping?	3.24	0.936
6. GLOBAL CONNECTION_1a: Study information about other countries or cultures?	3.21	1.193
7. SELF-DIRECTIONAL_1g: Use peer, teacher or expert feedback to revise their work?	3.21	1.166
8. SELF-DIRECTIONAL_1d: Choose for themselves what examples to study or resources to use?	3.21	1.111
9. TECHNOLOGY_1a: Use technology or the Internet for self-instruction (e.g., Kahn Academy or other videos, tutorials, self-instructional websites, etc.)?	3.18	1.334
10. GLOBAL CONNECTION_1b: Use information or ideas that come from people in other countries or cultures?	3.18	1.185

Table 17

The Tenth Lowest Average Mean Score of all 48 Instructional Practices

Questions/ Items	Phase 1 Sample (*n*=33)	
	M	*SD*
1. LOCAL CONNECTION_1c: Talk to one or more members of the community about a class project or activity?	1.61	0.966
2. TEACHNOLOGY_1g: Use technology to interact directly with experts or members of local/global communities?	1.70	1.185
3. LOCAL CONNECTION_1e: Respond to a question or task in a way that weighs the concerns of different community members or groups?	1.85	1.004
4. TEACHNOLOGY_1d: d. Use technology to analyze information (e.g., databases, spreadsheets, graphic programs, etc.)?	1.88	1.219
5. LOCAL CONNECTION_1d: Analyze how different stakeholder groups or community members view an issue?	1.88	0.992
6. GLOBAL CONNECTION_1e: Study the geography of distant countries?	1.91	1.128
7. CREATIVITY AND INNOVATION_1e: Create an original product or performance to express their ideas?	2.24	1.200
8. LOCAL CONNECTION_1b: Apply what they are learning to local situations, issues or problems?	2.27	1.126
9. LOCAL CONNECTION_1a: Apply what they are learning to local situations, issues or problems?	2.36	1.113
10. COMMUNICATION_1b: Convey their ideas using media other than a written paper (e.g., posters, video, blogs, etc.)	2.45	1.301

Teachers' Beliefs Towards Teaching of 21st Century Skills

In Section Two of the questionnaire, there was an open-ended question that sought teacher response of their beliefs towards teaching of 21st century skills. By analyzing the 33 short responses received, three overarching themes emerged: (1) positive and negative

perceptions towards teaching 21st century skills, (2) definitions of 21st century skills, (3) implementation of 21st century skills required actions or changes in the school systems.

Positive and negative perceptions towards teaching of 21st century skills. Based on the responses, majority of the teachers believe that teaching 21st century skills are essential for students as of the advancements of technology and changes of demands in the current society. The proponents of this concept stated students need to develop these skills to respond to the demand in the future employment. For instance, one teacher commented, as technology skills becoming normalized in daily life and workplace, teachers need to recognize what skills or particular areas students are struggling with in order to provide them the strategies to cope with the subsequent changes occurring in the society. On the other hand, there were a few teachers who did not state any particular comments on this matter, and a few teachers who stated irrelevancy of teaching 21st century skills to students of low-level language proficiency. For the aspect of irrelevancy, these teachers mentioned that some of the skills stated in the survey required advanced usage of language to be able to perform the actions to develop the skills. For instance, a teacher pointed out the engagement in the local contexts is more likely to be occurred in the L1 (which is Japanese) instead of English. There were also a few teachers who highlighted that they are teaching English language proficiency class; thus, they did not think about teaching 21st century skills to students or at least these skills were not part of their predominant teaching focus.

Definitions of 21st century skills. Some teachers perceived that teaching 21st century skills involved teaching cognitive skills, interpersonal skills and social skills. For instance, a teacher mentioned that students need to learn how to effectively communicate and interact with others, and be able to know how to select and organize the information they received. In terms of social skills, some of these teachers highlighted the importance of teaching communication skills, especially in the area of fostering cross-cultural understanding. They highlighted that students are constantly having the opportunity to interact with international communities or at least being

exposed to cross-cultural elements at learning; hence, they need to know and have the cross-cultural knowledge to interact with globalized community. Last but not least, the aspects of utilizing technology in teaching and learning were also identified a couple of times (9 out of 33) in the responses. These teachers perceived the importance of using technology in teaching and understood that technology helps to build students' 21st century skills and aids language learning experience.

Implementing 21st century skills required further actions taken or changes in the school systems. There were teachers who commented that implementing 21st century skills required a tactful planning and proper integration into teaching and learning process as well as course descriptions. As two teachers pointed out, time constraints and pre-determined contents are the obstructions that alter their ways of teaching. Hence, if teachers were to teach these skills, they need to be properly and meaningfully integrated to the tasks they do in class but not simply replacing the current materials. Not only that, there was a teacher who indicated that teaching 21st century skills required a consideration at a curriculum level in order to execute the teaching actions. He stated the courses he is teaching did not have much flexibility for him to incorporate some of the 21st century skills. With that said, some of these teachers expressed teaching 21st century skills seemed to be understated in the curriculum and syllabus. Moreover, a teacher also pointed out that such implementation required collaboration among all teachers (or in terms of collaboration from a unified group of teachers) rather than a solo-action from individual teacher. This finding showed that despite teachers seeing the importance of teaching 21st century skills, the crux of developing these skills should not solely rest on teachers; instead all teachers should be well trained to teach these skills. In addition, a teacher mentioned a thorough understanding on what exactly 21st century skills are is necessary to allow teachers to implement them in the class. Some of the responses represented that without a firm understanding or an awareness of teaching 21st century skills, these skills are most likely not developed to a great extent in class.

Henceforth, some of these teachers stated these skills need to be explicitly stated in the curriculum in order for them to teach the skills.

Relationship between Teachers' Beliefs and Instructional Practices

To understand the relationship between teachers' beliefs and instructional practices towards developing 21st century skills among students in the English language learning courses, a simple linear regression was used. Prior to the analysis, underlying required assumptions to run linear regression were accessed and entailed for valid result interpretation. The scatterplot (Figure 5) of standardised predicted values versus standardised residuals show the data met the assumptions of homogeneity of variance and linearity and the residuals were normally distributed. In particular, no curvilinear relationships were identified between the dependent variable (instructional practices) and independent variable (teachers' beliefs). The Casewise Diagnostic table did not indicate a significant outlier; hence, outlier does not exist, (Std. Residual Min. = -2.67, Std. Residual Max. = 1.99). Independence of residuals errors was confirmed with a Durbin-Watson test (d = 2.189). Data indicates homoscedasticity as assessed by a visual inspection of a plot of standardized residuals verses standardized predicted values (see Appendix J). Residuals plots (see Appendix J) were normally distributed as assessed by visual inspection of a normal probability plot.

To test the first hypothesis, Pearson Correlation was run to analyse whether there is a significant relationship existed between teachers' beliefs and the frequency use of the instructional practices to develop 21st century skills among learners. As Table 18 indicates, the correlation appeared to be significant at 0.001 level. In other words, there is significantly positive relationship between teachers' beliefs and the frequency use of instructional practices to develop students' 21st century skills.

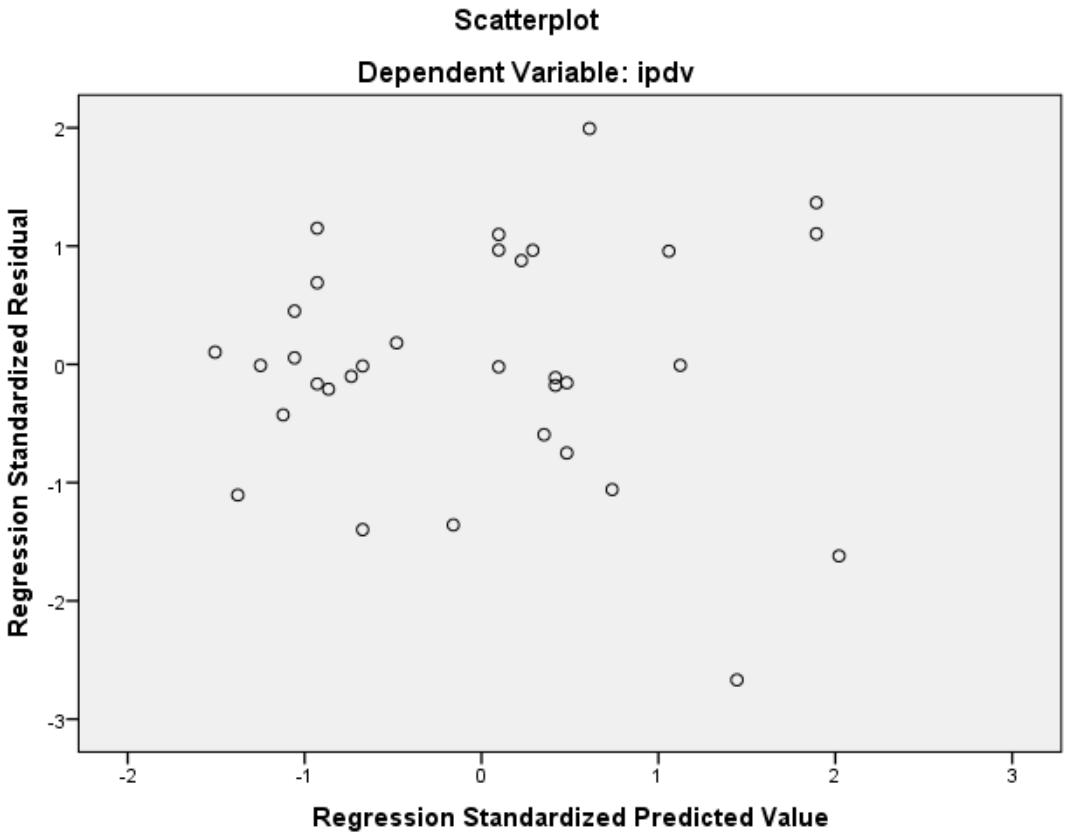

Figure 5. Scatterplot Graph

Table 18

Correlations Analysis Between Teachers' Beliefs and Instructional Practices

		Instructional practices	Teachers' beliefs
Instructional practices	Pearson Correlation	1	.868**
	Sig. (2-tailed)		.000
	N	33	33
Teachers' beliefs	Pearson Correlation	.868**	1
	Sig. (2-tailed)	.000	
	N	33	33

**. Correlation is significant at the 0.01 level (2-tailed).

To test the second hypothesis, a simple linear regression was carried out to see whether or not teachers' beliefs was a significant predictor of the frequency use of instructional practices to develop 21st century skills among learners. As Table 19 and 20 shows, the model established that

instructional practices had a strong positive correlation with teachers' beliefs at 75% of the variance, *R* square = 0.753, adjusted *R* square = 0.745, $F(1, 31) = 94.732$, $p < .000$.

Table 19

Model Summary: Predicting instructional practices through teachers' beliefs

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.868[a]	.753	.745	15.18492	2.189

a. Predictors: (Constant), Teachers' beliefs
b. Dependent Variable: Instructional practices

Table 20

Simple Linear Regression Output: ANOVA Table

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21843.480	1	21843.480	94.732	.000[b]
	Residual	7148.036	31	230.582		
	Total	28991.515	32			

a. Dependent Variable: Instructional practices
b. Predictors: (Constant), Teachers' beliefs

The following Table 21 illustrates the standardized beta coefficient ($B = 0.868$, $t = 9.733$, $p = 0.000 < 0.05$) which discloses the model was significant. Therefore, teachers' beliefs could predict significantly on the frequency use of instructional practices to develop students' 21st century skills.

Table 21

Linear Regression Results for Instructional practices by Teachers' Beliefs: Coefficients Table

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	9.685	12.419		.780	.441	-15.643	35.013
	Teachers' beliefs	1.676	.172	.868	9.733	.000	1.324	2.027

a. Dependent Variable: Instructional practices

In conclusion, some assumptions and recommendations can be drawn on the quantitative results. These components are discussed in the discussion section along with recommendations for future research.

Phase 2 Qualitative Findings

In Phase 1 quantitative study, the survey revealed a statistically significant relationship between teachers' beliefs and the amount of instructional practices use to develop students' 21st century skills in the current researched Japanese university. The findings in the survey offered the overview of the extent of teachers perceive development of 21st century skills among students through their use of instructional practices. In particular, critical thinking skills, collaboration skills and self-direction skills were indicated as part of the highest average mean score in practices amongst the eight 21st century skills. Alternatively, despite communication domain showed the highest average mean score in teacher beliefs items, this area did not yield similar rating in the aspect of frequency use of practice. In spite of getting the quantitative findings, the results were not able to offer detailed picture of the relationship between teachers' beliefs and practices in developing 21st century skills among learners. Hence, Phase 2 qualitative study aimed to further illuminate the data collected in Phase 1 through the use of case study approach.

In this section, the findings elucidate the detailed phenomenon of the teachers' beliefs and instructional practices towards developing 21st century skills among learners. The data collected in Phase 2 was through multiple semi-structured interviews and classroom observations. To that end, four participants were selected based on stipulated criteria, and they were interviewed and observed in so to present narrative descriptions of the case studies. Based on the methodology, the interviews comprised of a long initial interview (30-40minutes), and six short interviews (10-25 minutes) for the three classroom observations (there were pre and post observation interviews). Thus, each participant has seven interviews; however, due to unforeseen circumstances such as the changed of teacher's or researcher's schedule, some of the pre and post

observation interviews were combined. In total, 12 classroom observations and 26 interviews were conducted.

The following findings firstly presents the overview of the demographic of the qualitative teacher participants. Then, the findings of case studies were organized individually and followed by a cross-case analysis of the four cases. The analysis of the current findings exhibits significant themes and categories through textual descriptions, quotes, figures, tables, and literature support. Each case offers a series of subsegments such as teacher profile, overview of the observed class, goals in teaching English, influences on beliefs and practices, intersection of teaching roles, beliefs towards 21st century skills instruction, and classroom observations. Although these subsegments intended to demonstrate overall teachers' beliefs and practices of the four teacher participants, they are by no means an all-inclusive or prescriptive view of what teachers believe and do. The descriptions may overlap and interact as the themes emerged.

Overview of the Demographic of the Qualitative Participants

Four participants were selected from the 33 respondents of Phase 1 study based on the sampling criteria for Phase 2 study. These participants were selected as they were the top 10 highest summation of mean score in the aspects of teachers' beliefs and instructional practices in the Phase 1 study. As Table 21 shows, of the four participants, two are females and two are males. To achieve authentic representation, the participants are also referred as teachers and each teacher was given a pseudonym. Pseudonym is used to protect confidentiality of the participants and to assure the research achieve required research ethics. T1, T2, T3, T4 were referred as Chloe, Henry, Lina, Noah respectively. The demographic of the case studies shows in Table 22 cover wide-ranging specialization and varied years of teaching experience in English language.

Table 22

Demographic of Four Phase 2 Participants

Participants Pseudonym	T1 (Chloe)	T2 (Henry)	T3 (Lina)	T4 (Noah)
Highest academic qualification	MA	MA	MA	MA
Specialization	TESOL, Multilingualism, Translanguaging	ESP/Autonomy	TESOL, Intercultural Communication, CBI, CLIL	TESOL, Learner autonomy, EAP
Years of English Language Teaching (ELT) experience	3 years	21yrs	32 years	6 years
Gender	Female	Male	Female	Male
Age	20-25	51 and above	51 and above	31-35

Notes. Names are pseudonyms. 'T' stands for Teacher.

Teacher 1: Chloe

Teacher profile. Chloe is considered as a novice teacher with three years of ELT experience. She is from the Philippines and currently an Assistant Lecturer in the School of General Education in the university. She speaks more than two languages, including English and Japanese. She had just completed a Master of Arts in Education of Teaching English to Students of Other Languages (TESOL) in a Private Japanese University recently. She has engaged in teaching as a part timer throughout her pursuit of master's degree (including teaching young learners), and she is now in her first year of full time ELT career in the university level. She teaches the general English communication courses in the university. She has three different classes and the students came from different faculties. Her specializations involve multilingualism and translanguaging. She has also recently participated and presented in a conference, TEFLIN, in Indonesia.

Table 23 shows the initial result she has taken in the Phase 1 study, indicating her beliefs and instructional practices towards developing the 21st century skills. In her result, the three highest average mean scores of the instructional practices were using technology as a tool for learning (M = 4.13), local connections (M = 4.00), and communication (M = 4.00). On the other hand, the lowest rating instructional practices was creativity and innovation (M =3.20). A 4-point scale indicated the frequency use of instructional practice of 1-3 times per week whereas 3-point scale indicated 1-3 times per month.

Table 23

Descriptive Statistics of Chloe's Survey Response in SECTION TWO

Skills/ Questions	Average Mean Score (5-point Likert Scale)	
Q1: In teaching of your TARGET CLASS, how often have you asked students to do the following Q2: To what extent do you agree with these statements about your TARGET CLASS?	Instructional Practices (Q1)	Teachers' Beliefs (Q2)
Critical Thinking	3.33	3.00
Collaboration	3.33	3.33
Communication	4.00	4.00*
Creativity & Innovation	3.20	3.33
Self-Direction	3.71	4.00*
Global Connections	3.67	3.67
Local Connections	4.00	3.67
Using Technology as a Tool for Learning	4.13*	4.00*
Total:	3.67	3.63

Note.
'*' sign indicates the highest value
Question 1: 1 = almost never; 2 = a few times a semester; 3 = 1-3 times per month; 4 = 1-3 times per week; 5 = almost daily
Question 2: 1 = not really; 2 = to a minor extent; 3 = to a moderate extent; 4 = to a great extent; 5 = to a very great extent

Overview of the observed class. The class that Chloe's survey response based upon on was one of her English communication classes with her Law Faculty students. As of a background, general English communication course is a two-semester compulsory course for all university freshmen regardless of their majors. Despite a two-semester course, she has only started teaching the class in the Fall semester in 2019 as she just started working in Fall 2019. The students were taught by another teacher in the Spring semester. The general English communication course consists of four levels: beginner, elementary, intermediate and advanced. The observed class is one of the many elementary level of English communication classes in the university. The English proficiency level required to be enrolled in the elementary level is between TOEIC 285 to 395. The classes are held in twice a week on a 90-minutes lesson over 15 weeks in a semester. The main goals of the course are to develop students' academic language skills and study skills required for studies in English. In addition, the course also helps students to develop communicative abilities across the four major skill areas (listening, speaking, reading, and writing), provide a systematic review of grammar and vocabulary, and promote the development of study skills and independent learning. Aside from attending the classes, students are expected to have 3 hours of homework or self-study outside of the class. The classes are taught in English and the maximum capacity of the students' enrolment for the course is 24 students. The course book uses in the elementary level is the *World English 1 Course Book Second Edition* by Martine Milner 2015.

Apart from that, the classroom that Chloe uses consisted of movable chairs and desks, and it is equipped with one large size white board at the front and a movable smart board that can connect to any electronic device such as laptop or iPad. Based on the school portal system, she has 17 students registered in this class. As of her classroom layout, her methods for the seating arrangement was considered as the non-traditional style that fits into the realm of learner-centered classroom (see Figure 6). The desks were arranged vertically in cluster or also known as the island-arrangement. There were six clustered group, and each group were formed with four

desks. During the three classroom observations, the attendance of each lesson was 15 students on the first classroom observation, 16 students on the second, and 15 students for the third.

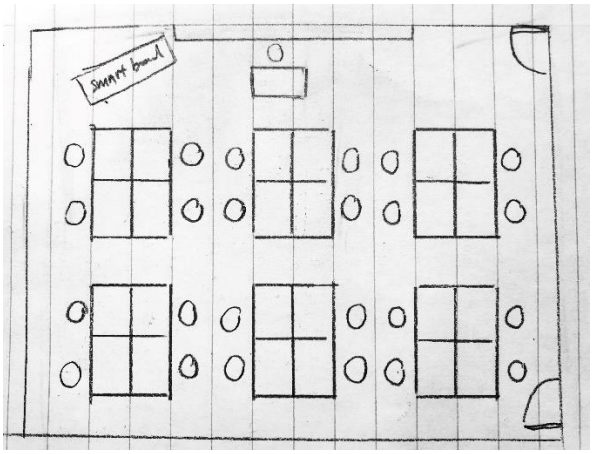

Figure 6. Chloe Classroom Layout

Core teaching beliefs. When asked about Chloe's core teaching beliefs during the initial interview, the finding revealed understood needs of the students. She indicated that she viewed the needs of the students as a priority along with the course goals and objectives to plan her lesson. As a teacher, Chloe believed that it is essential to learn about the types of leaners she has in the classroom. Based on her response, the aspects of students could be students' prior learning experience, students' characteristics or personality, students' learning style, students' position in the classroom, and the most important of all is the students' current learning gaps. One of the reasons she supported with her statement was that often there may be a gap between her expectations of the level of the students who enrolled in this course and the actual ability of students who enrolled in the class. She explained at the beginning of the semester, she noticed a significant gap between what the students have learned in the previous semester and the content she is supposed to cover in the current semester. She felt extremely concern on this matter and thought of how to best handle this issue; hence, she sat down and talked to the students. She discussed with the students about what they have learned and knew in the previous semester as well as to negotiate the amount of task they will learn in her class. This initiative has allowed her to address the student learning needs and to come to decisions on content and how to teach as

well as to adjust her previously planned lesson plan based on student feedback. She also relates understanding of the needs of the students in conjunction with student motivation, she indicated:

> It's very important for teachers to cater the needs of the students… to ensure that they're learning based on how you teach, but if the students lose their motivation, for example, because you keep on pushing what you want to teach them and they don't, they still don't get it… It's going to be very difficult for them. (Chloe, personal communication, October 23, 2019)

In this case, Chloe perceived that failing to meet the needs of the students may affect students' motivation, and possibly causing disengagement in learning. Hence, this perception could indicate her idea of effective teaching and learning is related to affective manner in the classroom. Similarly, Chloe also believed that students' learning should be engaging and level-appropriate in so to not demotivate students. This proposition can be revealed in the following two statements,

> I have to make sure that even though the needs of the students [is to] become competitive in using the language by the means of, well, activities, communicative activities. I have to make sure that it is matching their level at the moment… I don't want them to think that the class is a burden for them. But at least we still need to do the requirements, but it's not too much. (Chloe, personal communication, October 23, 2019).

> … to ensure that while they are learning English, in this case, they have to be really engaged as much as possible. At least [they] maintain the motivation. It's not necessarily to improve the motivation per se, at least maintain it. That's the idea. The important thing is that they don't get demotivated. That's very crucial, I think. (Chloe, personal communication, October 23, 2019)

The second statement illustrated her belief on the role of teacher, which is not to demotivate students. In her belief system, increasing students' motivation could be an ideal outcome, but considering the aspect of students, she believed as long as she was able to maintain students' motivation will do better than harm the students.

Goals in teaching English. Chloe's teaching beliefs towards the goals in teaching English varied, such as to develop a positive learning environment, to focus on using English as a tool, and to encourage students to think outside of the box (which could be related to creativity). However, during the interview, it be can be construed that her ultimate goal is to develop competent language user by the means of developing communicative competence. This belief is

synchronized with her response in the survey where she marked the goals of teaching English is to develop knowledge of the language skills and competent language user. She indicated that she does not aspire her students to use the language fluently but knowing how to think in English and using the language in an appropriate context are rather important. She hopes her students could be familiar with the culture of learning in an English medium classroom and not just using the textbook English. Surely, her goal is an ideal target, but she knew how difficult it is for her students to attempt to open up and be active in the English medium classroom because they are used to lecture style and not asking much question in the Japanese medium setting. On the other hand, align with her beliefs towards maintaining students' learning motivation, her goal in teaching English is to expand students' authenticity of language learning exposure and comfortability in using English. She is well-aware that students do not attend her class because they want to study English but because the course is a required course in the university. Hence, she wants her students to feel comfortable and use English as a tool to negotiate meaning inside the classroom and possibly outside of classroom. By that, she has asked her students to watch sitcoms, films, and videos to get authentic language exposure. During the Halloween, students in her class get to watch the Nanny McPhee in her class. Last but not least, she also mentioned,

> … I want them to be aware on how the language is used not only by the means of standard casual conversation, but also I want them to use their critical thinking skills in using the language. (Chloe, personal communication, October 23, 2019)

She highlighted that she wants her students to think critically in her class. She made an example of the vocabulary quiz that she offered a week ago when the class is observed. She pointed out that she used an alternative word on purpose so that the students were able to identify it and negotiate the answer with her, and the student did response to what she intended them to do.

Influence of beliefs and practices. Based on the interviews, the aspects of influence on Chloe's beliefs and practices were consistent with the variables indicated in the past literature. As Borg (2003) indicated, the common aspects that influence teachers' beliefs included the prior learning experience of the teacher, teacher education, educational context, and classroom

practice. Throughout the interviews, Chloe's statements covered all of the aspects stated in the literature. As explained by Chloe, her major teaching concern that attached with the needs of the students was due to her past learning experience as a learner. She said she has seen teachers who kept pushing the students (making them to learn something they may not be interested in) ended up losing students' learning motivation in class. Her past observations during the school years of how teacher teaches was known as "the apprenticeship of observation" in the literature (Lortie, 1975), and these observations as a learner formed a preconception about teaching either in a positive or negative way (Borg, 2018). In addition, her beliefs about teaching grammar also claimed to be linked with her experience as a learner. She said,

> In my country, … we had two English classes, one for reading and one for grammar, so they're separate. So for grammar… we have to write and then based on what grammar points we learn. And then for example, they asked us before to write anything like favorite food… and the way grammar is taught in my country is really brutal. They're very, how can I say, rule oriented? Yes, and they check even the slightest detail when it comes to grammar… (Chloe, personal communication, October 23, 2019)

She claimed the experience she had as a learner indeed had an impact on her perspective towards how to teach grammar. As a result, the belief she has formed throughout her prior learning experience as a learner guided her to be particular in teaching grammar as a teacher. However, despite having a long-term influence on her beliefs about grammar teaching, classroom practice also guided her to adjust her instruction. This finding supports the proposition of Buehl and Beck (2014) that practices also influence beliefs. As Buehl and Beck (2014) noted, one of the positions in the belief-practice relationship was the reciprocal relationship between beliefs and practices. She pointed out,

> When I teach, when I was a new teacher like, prior my experience here [in this university], I got very particular in teaching grammar to Japanese students. But we were told that we don't have to be really particular… because they want to improve the communicative skills and [they have] bear learning grammar in high school, and grammar is taught in Japanese, in Japan, right. So, it's very difficult to adjust with that for me. That's one of the challenges before, so [I was thinking] how can I teach communicative if I couldn't teach grammar? That's how the impact was for me. (Chloe, personal communication, October 23, 2019)

Chloe's statement above illustrated her experience as a learner impacted her way of teaching grammar, but her classroom practice informed her to adjust her existing beliefs due to the challenges she faced in the classroom. The educational context (students' needs and her colleagues) caused her to reflect on her beliefs and practices. In addition, the aspect that assisted her to shift her teaching practices (or perhaps beliefs) were teacher education. She mentioned,

> I tried to learn the teaching strategies on how I can teach communicative skills. So, it was really helpful in one of the classes here in grad [graduate] school. Where we were taught on how to create awareness to students and other strategic techniques like the top down… the strategies in providing communicative… learning to students… What I do is that I show them a little bit of it (rules) and then afterwards they have to practice. (Chloe, personal communication, October 23, 2019)

Chloe also made quite a number of statements about her past learning experience as a pre-service teacher. Her practicum experience in the teacher education program helped to frame the effective teaching practices. This can be evident in the following two statements,

> I got this style from the practicum. After I gave the instruction, I asked them to confirm. Yeah, and then they will explain it in groups. Like for example, one student couldn't understand the instruction. One student, another student will explain it in Japanese. So I'm not really particularly strict in these of Japanese in class. (Chloe, personal communication, October 23, 2019)

> I had this kind of expectation that B [elementary]-level students are at this level… the four skills. I expected them to have at least a good foundation [on the skills] … But then, yeah, I found out that some students didn't have any experience with writing… So what I did was I had to readjust my syllabus… (Chloe, personal communication, October 23, 2019)

Hence, to a great extent, her beliefs about teaching were influenced or formulated during her teacher education in Masters, and those experience aids her to shape the way she teaches and organizes the content in her class.

Beliefs on teaching of 21st century skills. In the survey response, Chloe answered her beliefs towards teaching of 21st century skills were somewhat indirect. She stated the interpretation of this concept was subjected to the teachers she has talked to; however, she would most agree with teaching 21st century skills as relation to the importance of expanding student knowledge due to the affordance of technology. During the initial interview, when asked about

her beliefs towards 21st century skills, she emphasized many teachers did not have a sufficient understanding on this concept, and she disagreed critical thinking skills as part of the 21st century skills as this skill has always been around. Instead, she believed 21st century skills should incline to the use of technology. This comment can be evident when she said,

> Because other teachers don't know what 21st century skills are exactly, and I personally think that critical thinking skills, like it's not really part of the 21st century. It's been there all the time. Yeah. So I think it's more of the technology. (Chloe, personal communication, October 23, 2019)

For this reason, her statement was no surprise in the literature. In fact, the existence of hundreds of classifications and descriptors of skills set created by different organizations and associations had cause this 21st century discourse confusing and misleading, thereby puzzling many education stakeholders (Kereluik et al., 2013; Mishra & Mehta, 2017; Rose, 2009; Silva, 2009). This issue is highly concerned by many educational stakeholders so as to find ways to inform the public about the concept, theory and practices in developing 21st century skills in student. Despite inability to capture her belief towards this concept, her survey result indicated a high usage of 21st century skills instructional practices and such indication may worthwhile to look into how she develops the skills in students.

Classroom observations. In all of the observed lessons, the most salient development of 21st century skills were the 4Cs (critical thinking, collaboration, communication, and creativity and innovation), and self-direction skills. The following descriptions highlighted how Chloe's teachers' beliefs and instructional practice were manifested in the actual classroom practice as well as the relevance with her stated beliefs.

During the first classroom observation pre-interview, she shared the teaching goals of the lesson were to introduce a new unit (about friends and family) in the textbook and to teach a grammar point (comparative). When asked about which 21st century skills she would most likely highlight in the lesson, she replied collaboration and communication skills. She shared that there were four main components in the lesson – topic-talk, quick write, grammar teaching, communicative activity. Topic-talk is a considered as a warm-activity (routine task) that consists

of semi-structured conversational questions for students to activate their thinking in English and to produce meaningful output in pairs or groups.

Throughout the lesson, one of her strategies to encourage collaboration skills among learners was assigning roles to the students such as asking students to choose a role; for instance, having a leader in a group. A leader has the role to initiate the discussion or communicative flow in the group and to ensure the group mates are using English as well as to encourage them to ask follow-up questions. Based on the observation, students were quite aware of her teaching style and were able to decide their roles within a minute and began the communicative task. Additionally, in order to increase the dynamic of collaboration, Chloe had students switching seats more than twice to work with different students as she progressed in the lesson. When asked about the importance of switching partners in the teaching and learning situation, Chloe addressed a belief that she has not mentioned in the initial interview which is her belief towards learning, in particular how to maximize students learning. This can be evident in her pedagogical rationale of switching pairs in the classroom. She responded that she wants her students to have the opportunity to work with different classmates for three reasons: (1) students are able to familiarize with their classmates' personality and ability in English, (2) students are able to expose to different styles of English spoken in class, and (3) it helps to increase the learning dynamic in classroom. She had two groups of three interactions and one group of five interactions that day.

Before the class began, students picked a card randomly from Chloe to find out their seats-of-the-day (they were sitting in a group of 3). The class started with simple greetings and rapport building-conversation and then moved on to giving instructions for the topic-talk activity. Students had to decide a role to begin the conversation. The speaking prompts were shown on the smart board. During the post-interview, Chloe explained her belief that assigning roles to the students were the most efficient way to manage her classroom and to foster leadership in students. She stressed that she also wants her students to experience the role of a facilitator in a

discussion format, and this arrangement has made the experience successful. The role of a facilitator, as she commented showed a similarity on what she has indicated in the interview: "(their role) is beyond being a leader (it is to) ask the question, they can also give their opinion…" (Chloe, personal communication, November 20, 2019).

In addition, Chloe's intention on assigning roles in students seemed to indirectly emphasize the idea of active learning as well as her goals in teaching English which is to develop communicative competence among students. She articulated that she has taught speaking strategies to students on how to use certain expressions to ask follow-up question in the past, indicating her expectation on students using the strategies to respond to their group mates. On the other hand, Chloe also mentioned that the speaking prompts she created in topic-talk often involved lower-order and higher order thinking skills. The questioning strategy involved asking the why or why not question that allow students to analyse or differentiate their personal opinions. Thus, this instructional practice also indicated a sign of fostering critical thinking skills in students.

Second, the quick write activity echoed the development of self-direction skills as well as reflective teaching approach. Students were given a writing prompt, such as to reflect the topic discussed in the topic-talk and to have self-evaluation on their own speaking skills. The activity took about 7-8 minutes. The actual duration of quick-write took 5 minutes, and once they finished the task, they had to record the number of words they wrote into the writing tracker (a writing record sheet that Chloe has created) in order to monitor their weekly writing performance. Interestingly, other than reflecting students' learning, Chloe mentioned the purpose of quick-write also served to slow down the energy or flow of classroom dynamic. She indicated that "after topic talk... they have to slow down. It's draining to talk for 90 minutes. I just want them to slow down. That's why I added did quick writing" (Chloe, personal communication, November 20, 2019). Thus, her core teaching belief of not demotivating students was showcased here in respect to not overburdening student learning.

Moreover, instructional practices for developing creativity and innovation skills and collaboration skills were also enacted in this lesson during the communicative activity. She had students to do an A to Z brainstorming task. The activity resembled the concept of game-based learning because students have to collaborate in group of 5 to finish the brainstorming task within a certain time frame. Once they created the list of adjectives, they wrote them on the board. After that, they were arranged into a new group of 3 to create sentences using the words on the board as well as to practice production for grammar (comparative) that just learned.

Subsequently, the second classroom observation was a midterm mini-poster presentation. The main goal of the lesson was to practice and apply presentation skills they have learned and prepared in the past two meetings. Presentation is often assessed in the university, but if it is done effectively, presentation skills will be much valuable for the 21st century learners as working environment deals highly with presenting ideas to the teammate. Presentation could manifest all the eight 21st century skills. Just to highlight, Chloe was extremely satisfied on students' performance that day mainly due to the high engagement shown in class. She allocated a preparation time before the mid-term assessment. The mini-poster presentation consisted certain assessment criteria and were built upon on a scaffolded presentation guide as well as a paragraph writing assignment on "the favourites". Students had a scope to choose their own topic of presentation, such as, favourite place, food, and thing. Each student had 3-4 minutes to present in their own group followed by a Q&A. One of the emphasized skills in this lesson was collaboration skills as students were required to do peer-evaluation on other students' work and they were responsible to clarify the details in the presentation and asked follow-up questions to the presenter. With a group configuration of 5 or 6, student analysed and evaluated at least four presentations within the group. In addition, students were free to create their own original product, but in the manner of A3 size poster. With this case, this task allowed the development of creativity and innovation skills. Last but not least, self-direction skills were embedded in the

midterm guide that was given to students in the previous meeting. The handout consisted specific criteria or rubric that assess the quality of their midterm presentation.

On the third classroom observation, Chloe indicated that her main goals of the lesson were to expand student usage of a grammar point of ‘should’ and ‘should not’ as advice in the communicative activities, and to introduce a compare and contrast paragraph writing. During the observation, there were many instructional practices that she used that allowed development of collaboration skills, communication skills and self-direction skills. The class seemed to show a high student engagement by the way how Chloe sequenced and scaffolded the activities. At the beginning of the class, she asked students to create questions about the topic (i.e., questions about fashion) that she put on the smart board. Then, once students have done discussing the topic; each group wrote their questions on the whiteboard. The questions that have been written on the board were later served as communicative questions for students to talk about in the fluency activity. During the fluency activity, students stand in two lines and chose the questions on the board to ask and answer with a partner; they also swapped partner a couple times. Through this activity, students were simultaneously collaborating, communicating, and self-directing their learning. Once they finished the fluency activity, they had to reflect their speaking ability and about the topic in the quick write activity. By having a quick write after a communicative activity also slowed down the pace of the teaching as the quick write helped students to review and reflect not only the topic but also the language (or grammar point) they just practiced. Subsequently, students further practiced grammar and shadowing using the textbook, and Chloe incorporated communicative activity to facilitate the learning process. She used think-pair-share, and swapped a couple of times of pair-work. At the last communicative activity, she allowed students to have a whole class interaction. First, students were given a piece of learning prompt, and they have to answer the prompt individually. Afterwards, students had to stand up, look for a partner to share their answers (the prompt was about asking for advice). The last activity, which was introducing a compare and contrast paragraph. Chloe used a whole class teach-and-elicit

interaction with the students; the teaching was supported by learning aids (her presentation slides and a written semi-guided prompt for students to take home).

Summary. The key influences of Chloe's beliefs that triggered the modification in her practice or the negotiation in between her tension-beliefs were accounted for teacher education and educational context (especially her students). The current findings showed evidence of tension in between her beliefs towards teaching and learning (i.e., pedagogical English grammar knowledge) and the actual students' goals in learning English grammar. Even though she has certain expectations from students, considering the needs of the students, she would likely to readjust her lesson plan or strategies to help students learn. As such, this finding illustrates that despite teachers having dissimilar beliefs with their stated beliefs, their changes in the instructional practices were often the effect to match students' expectations and preferences in learning (Andrews, 2003; Phipps & Borg, 2009).

In terms of general teaching beliefs, Chloe's beliefs and instructional practice sheds light on the continuum of teacher-centered and student-centered spectrum. For teacher-focused, her lesson plan was well-organized in a manner that she has made a significant amount decision on the learning activities and content in her lesson. Likewise, the lesson materials or learning aids (i.e., formative assessment rubric, midterm guide) she offered served as an effective tool for structured input to develop lower level students' four skills, and these materials also served as the criteria to measure students' learning outcome. Nonetheless, her beliefs also lie in the transition in between the two major spectrums because despite having pre-determined lesson plans, she would utilize students' feedback to modify her lesson plan to a certain degree. In addition to lesson adjustment, she also focused highly on the needs of the students (i.e., her belief of building good rapport between student-teacher and student-student will promote higher student engagement).

In contrast with her reported survey-result, the actual classroom practices in the three classroom observations revealed somewhat congruity. The areas of local connections and using

technology as a tool for learning were not obvious in her actual classroom practices but were scored as high values in the survey response. In spite of that, further clarification was made during the interviews. For instructional practices (i.e., e, f, g, h) in the domain of using technology as a tool for learning in the survey, she explained she did not think deeply enough when she answered some these items and might not actually shown a great extent in her practices. Despite such inconsistency, the result could be attributed to her belief towards technology integration practice. She may want to integrate those practices in her teaching, but she did not have enough time to plan thoroughly to execute them in classroom. Additionally, some of the instructional practices she selected "almost daily" (e.g., critical thinking skills – item c) was not seen in her actual classroom practices, but she was able to further elaborate that she did that on Monday's class in the section of reporting extensive listening journal. Due to the clashes of schedule, Monday's class was not observed. Finally, Table 24 provides a summary of the overall observed 21st century skills instructional practices in the teaching and learning scenario of the three classroom observations.

Table 24

The Observed 21st Century Skills Instructional Practices in Chloe's Classes

Lesson Agenda	Interactions	Highlight of the 21st Century Instructional Practices**
CO1*		
Topic-talk	Group of 3	Collaboration – a, c, d
Quick-write	Individual	Communication – a Self-directional – e
Textbook - Grammar	Whole class	
Communicative activity	Group of 5 → whole class → group of 3	Critical thinking – f Communication – d Creativity and innovation – a
CO2*		
Preparation for the midterm	Individual	
Mini-poster presentation (involved Q&A, peers-evaluation or feedback)	Group of 5 or 6	Critical thinking – f Collaboration – f Communication – a,b,c,d,e Creativity and innovation – d, e Self-directional – b, d, e, f
CO3*		
Topic-talk + fluency practice	Pairs or group of 3 → Whole class → Fluency line (pairs)	Critical thinking – f Communication – a Collaboration – a, c, d Creativity and innovation – a Self-directional - b
Quick-write	Individual	Communication – a Self-directional – e
Textbook – Listening, grammar, pronunciation, shadowing	Pairs → whole class → pairs	Communication – a
Communicative activity	Individual → Pairs → group of 3 to 4	Communication – a Self-directional - b
Teaching Paragraph writing	Whole class	Self-directional – b,d,f

Note.
* 'CO' stands for classroom observation
** See Appendix K for the whole list of practices

Teacher 2: Henry

Teacher profile. Henry is currently a Lecturer from the School of General Education, but he also teaches courses in the graduate school. He has a total of 21 years of teaching experience in English Language education, and he has been working in this university for eight years. He had a Graduate Diploma in Language Education, a Master of Arts in Japanese Studies, and a Bachelor of Arts (Honours) in Asian Studies. He is from Australia and he is proficient in three languages (English, Bahasa Indonesia, and Japanese). His specialization is in English for specific purposes and autonomy. He is actively involving in the professional development at school, and JALT Pansig.

The following Table 25 shows Henry's survey response in section two. As the table shows, the uses of instructional practices on critical thinking, collaboration, communication, self-direction, and global connections obtained a full 5-point Likert scale. The scale stressed that the frequency of asking students to develop these particular skills is on an almost daily basis. For question 2, the extent scale has the highest average mean score on communication skills (M = 4.67).

Overview of the observed class. The class that Henry's survey response based upon on was one of the departmental English courses for Faculty of Law. Students who enrolled in the Law international pathway program could enrol in this class. This course is a two-semester course in which the English course type is considered as English language for Specific Purposes. The goal of the class is to introduce legal and social issues from historical, cultural, and political perspectives to students. Students are required to conduct research, discussion, and writing to express ideas as well as support one or more sides of the social and legal issue. The class is held once a week on a 90 minutes lesson. The resource used in this class is offered by the teacher or generated by the students whereby no coursebook is given. The estimated self-study time outside of class is 2 hours, including assignment and class preparation. According to Henry, the major tasks in this class include presentation, discussion and debate. Students have learned about

Table 25

Descriptive Statistics of Henry's Survey Response in SECTION TWO

Skills/ Questions	Average Mean Score (5-point Likert Scale)	
Q1: In teaching of your TARGET CLASS, how often have you asked students to do the following Q2: To what extent do you agree with these statements about your TARGET CLASS?	Instructional Practices (Q1)	Teachers' Beliefs (Q2)
Critical Thinking	5.00*	4.33
Collaboration	5.00*	4.00
Communication	5.00*	4.67*
Creativity & Innovation	3.20	3.00
Self-Direction	5.00*	4.33
Global Connections	5.00*	4.33
Local Connections	1.00	1.00
Using Technology as a Tool for Learning	1.63	1.00
Total:	3.85	3.33

Note.
'*' sign indicates the highest value
Question 1: 1 = almost never; 2 = a few times a semester; 3 = 1-3 times per month; 4 = 1-3 times per week; 5 = almost daily
Question 2: 1 = not really; 2 = to a minor extent; 3 = to a moderate extent; 4 = to a great extent; 5 = to a very great extent

presentation skills in the previous semester and have to hold two debates in this semester. The minimum level of language proficiency to be registered in this class is TOEIC 400 and above.

Similar to Chloe's class, Henry also use the same facility. The classroom that Henry uses is equipped with movable chairs, desks, smart board, and a white board as illustrated at Figure 7. The classroom layout in Henry's class has three vertical cluster groups or islands. Each cluster group is filled with six to eight desks. The maximum capacity of enrolment in this class is 24

students; however, Henry only has 11 students enrolled in the course. Henry has all full attendance, 11 students in all the three classroom observations.

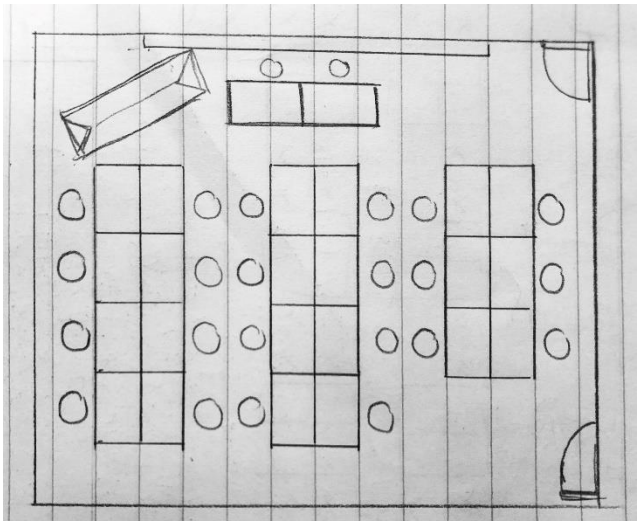

Figure 7. Henry Classroom Layout

Core teaching beliefs. When asked about Henry's core teaching beliefs, his answer, is to empower students as to build a positive and encouraging learning environment that enable students to support one another. He believed a great importance in treating classroom environment as a learning community where students are aware of their own roles and goals to collaborate in a safe and sound supported manner. During the interview, he seemed to leverage the theory of social-cultural approach by Lev Vygotsky in his language teaching approach. This belief indicates his perception towards learning is best occurs in an existence of social interaction. In the notion of social-cultural approach, he explained,

> Social cultural approach is a good way to teach because you're creating your own culture in classrooms. You're not relying on the students to bring, to be preloaded with an active learning attitude, you have to create an environment where they understand that that's the learning attitude they need to succeed. (Henry, personal communication, Oct 23, 2019)

His explanation indicates that effective teaching occurs when a teacher is creating a classroom culture of learning that impact successful learning and meaningful for the future. Similarly, another prominent core teaching belief identified in Henry's initial interview was building learner autonomy in students. He offered quite an interesting perspective towards learner autonomy.

When asked about how he decides what to do and what not to do so that students are engaged in learning, he stated that,

> I've been heavily interested in student autonomy as well… Vygotskian perspective… I don't view autonomy as an individual property. It's more of the autonomy of the of the group or classroom, you know, so it's, it's trying to create your classroom as an autonomous unit in which everybody knows what their role is and can, you know, determine their role and be aware of what their role is in learning. (Henry, personal communication, Oct 23, 2019)

Henry's perception of learner autonomy is connected with his beliefs of socio-cultural theory. His indication of learner autonomy is not just a student deciding what actions he or she needs to do but how autonomy is built within the whole-class as a one entity. His belief also revealed a collective culture awareness in which students have choices and curiosity to direct their learning together with their peers. This connection could be based upon on the theory Zone of Proximal development where students co-construct the knowledge through social interaction with peers (often preferably a group which has mixed ability to allow students to help one another). Throughout the three observations, Henry's role in teaching seemed to echo as a facilitator, delegator, resource and counsellor. During the interview, the role of delegator can be identified when he said "…one thing I like to do is to pull back from the class, quite a lot… actually" (Henry, personal communication, Oct 23, 2019). As a facilitator, he also reasoned he wants to give more freedom to students to explore learning direction or strategies as well as to build up their confidence in learning. He commented,

> I really want to give the students a lot of space actually to just show that I've got confidence in them and that they can try their best to get a lot of guidance from their peers. And of course, that's not a perfect system because you know, the friend groups don't get a lot of feedback quite often. I think it's okay just in building their confidence and their self-esteem, you know, their interest in the language. (Henry, personal communication, Oct 23, 2019)

On the other hand, it is his beliefs that teacher-talk should be minimal to allow more student-led learning, otherwise the classroom interaction is interrupting student autonomy. He articulated that,

> I think if the teachers sort of… cramping students or the teachers talking all the time… You know it just confuse students and impinges on their autonomy,

> you know? So I think if you want students to be autonomous… you, you have to give them space. So. yeah, I can't always do it, but that's my agenda. Sometimes I do it too much. But you know, that's my general kind of feeling is that if I've set up the class properly, or a proper setup project or an activity properly, I should be able to be just to try to watch the students. And I think, yeah, I think I'm fairly successful with that because I sometimes feel a bit a bit like I'm not so necessary in the classroom. Because I think students don't ask me many questions actually. And that's sometimes that makes me feel a bit bad and useless but on the other hand, that's really my objective. you know, I, you know the students because I watch the students a lot. And, you know, as long as they're on task, and they're doing what I want them to do. Well, it's good if they don't have to come and ask me something, you know, because I want them to learn from each other as much. So I mean that's part of creating, creating the community, you know, they work together on projects, and they help each other, and they learn from each other. (Henry, personal communication, Oct 23, 2019)

As the statement shows, Henry felt that he was successful in applying learner autonomy in his teaching as he has given plenty of space for students to discover learning and allow students to rely on their peers to help to construct knowledge. In here, he reiterated his teaching role as a resource to students in which students seek help from him whenever they need to. Other time, he just observed his students' learning process. Throughout the initial interview, Henry shared that he has attempted a variety teaching style, from a very teacher-centered (i.e., a pre-determined structured lesson) to an overly student-centered (e.g., provide a great deal of freedom to students but only little instruction), but now he seemed to be able to pull back and have semi-freer structured type of teaching style. One of his strategies now is to provide a model of learning or clear learning outcome or objectives for students to prepare for the task.

Moreover, he claimed that reflecting is an important learning process. He employed reflection to trail student's progression in learning. His adoption of the reflective approach in classroom also involve social-cultural theory as he asked his students to share reflections with peers. His rationale behind using reflection is shown in the following statements,

> I think because they all have different goals and attitudes… again, I don't want to be too domineering, I don't really want to direct them in one way only. And it just, it helps to create the community. Students are mostly evaluating themselves and reflecting on what they do, but I get them to share a lot of their reflections as well. So, they read each other's journals, most weeks at the beginning of class or something. So, you know, they're sharing their experiences in that way. So that they can I get a window about how their

> classmates are feeling… I think that helps create a good bond between the students, I think that those students are already very bonded because they're doing that one particular program there in the global law program. So they do a lot of special courses together. So they, they already have a strong bond. It's good to maintain that bond in the English class as well. (Henry, personal communication, Oct 23, 2019)

Goals in teaching English. Based on Henry's survey response, his goal in teaching English is to develop competent language user. Both interviews and classroom observations revealed he pays attention on maximizing students learning opportunity and promoting learner autonomy. In concordance with his beliefs towards socio-cultural approach towards language teaching, he mentioned that he tends to do scaffolding and modelling at the beginning of every task to demonstrate the procedures of the task and concrete learning outcome to students. How he does modelling and scaffolding can be illustrated in the following statement:

> I kind of train them how they can analyse a lecture, a Ted talk lecture for example and how they can analyse the vocabulary and then how they can present to the class as a listening exercise and comprehension exercise. (Henry, personal communication, Oct 23, 2019)

> So the idea is that we do it together and I show them what I want them to do what I expect and then I'll do it in a group. you know I'll give them help as they go through and then you know we will do the same activity again a few weeks or months later and hopefully they need less support from me. This is the scaffolding I do… if you do this through the same process several times each, each time they should need less and less support from me. Yeah that's the scaffolding approach. (Henry, personal communication, Oct 23, 2019)

> I give them a basic kind of a structure for how to do their poster presentations. And then we just go through practices three or four times during the semester. And yeah, I give them kind of feedback on their presentations, but not much else… I give them some structure for self-evaluation, quite a lot of structure for self-evaluation. So, they have to reflect a lot on what they do and how they can do it better. (Henry, personal communication, Oct 23, 2019)

Henry mentioned that the model he presented to students not only provided a clear expectation or objective for students to be aware of, but also freedom for students to choose the examples they use in their learning. However, Henry also shared the challenge he faced in trying to optimize learning opportunity. He said it has been a great difficulty in balancing between teacher guidance and student-centered learning. He mentioned that,

> I think, getting that balance right is always a difficulty in student independent-center [and] teacher guidance… There is a role for teachers, definitely. Teachers need to be there to help student… [sometimes] maybe I get that balance wrong. But yeah, I think that's my decision. You know, I think there's a lot of courses and teachers who are, you know, very, very well organized and very a lot of input, provide a lot of input here. And maybe those teachers are better than me. [as in] better at 'that' than me. Yeah. So yeah, but that's not really my thing. I mean I have done that in the past… (Henry, personal communication, Oct 23, 2019)

This statement indicates his lesson used to be more structured that may not necessarily allow great freedom in the class.

Influences of beliefs and practices. As mentioned by Henry, his beliefs and practices are influenced by his prior learning experience, teacher education, and educational context. Henry indicated his learning experience as a learner informed him what not to do in his teaching. Henry graduated in the 1995 whereby his teacher used mainly on the traditional approaches such as audio-lingual method to teach Bahasa Indonesia, notional-functional approach and grammar translation approach to teach German. He articulated he did not want to teach the way he was taught as those approaches would not be applicable into today's context for being rote-learning in nature. He said learning should be more engaging and encouraging that allow students to communicate, involved, and participate. Golombek (1998) suggests this narrative as teacher's 'personal practical knowledge' or 'image' of teachers. The image of ineffective ways of teaching he gained from his lived experience as a learner reconstructed his belief about teaching and learning. Likewise, his teacher education in applied linguistics has shaped his beliefs towards teaching and learning. This can be evident in when he said "… I think the way I teach is basically from my teacher training… studying different theories, like Vygotsky theory, social theory a lot … so I got interested in that …" (Henry, personal communication, Oct 23, 2019). His practice was also influenced by his students in the educational context. In the classroom observation interview, he indicated he has adjusted his teaching practice to cater the proficiency level of the students in his class. He stated,

> Doing this debate with that level of students, usually they're C or D level students that I'm working with. So is quite just the structure of wanting them

> to communicate in is a very high level structure. And they're not up to so you know, I thought about it and simplified the debate quite a lot. (Henry, personal communication, Nov 27, 2019)

The mismatch proficiency levels in the classroom made him to adjust his teaching practice.

Beliefs on teaching of 21st century skills. Henry's response in the survey stated his beliefs towards teaching of 21st century skills as something very desirable and required a thorough plan or execution to be integrated into language teaching. He stated that it is his responsibility as a teacher to integrate 21st century skills into his classroom practice. This scenario depicts the key role of teachers in developing a sustainable implementation of 21st century skills instruction (Voogt & Roblin, 2012). During the initial interview, he indicated he valued collaboration and self-direction skills the most in his class. In a light manner, he commented leadership skills should be included in 21st century skills. As observed, the manifestation of collaboration and self-direction were emerged in his project-based learning approach to develop student's presentation skills and debate skills. The syllabus and the nature in this course allow students to have abundance of collaborative opportunities via research projects. Each research project takes about four to five weeks to aid deep learning. With discussion, presentation, and debate focused, Henry explained how he executes his lesson. First, he said he offered a list of topics for students to choose and students choose two to three topics that interest them and talk with their peers about what they want to research about. Then, students further elaborate the topic and negotiate the configuration of debate groups and the finalized topic. Often, it has a two core groups working on a different debate topic. Since Henry has odd number of students, the remaining students have to vote to finalize the group arrangement Students usually work in groups of two or three (for or against team), and a combination of two small groups in one debate topic. Last but not least, when asked about his opinion on 21st century again during the third classroom observation, he mentioned that his implementation of 21st century skills could be the result of shared elements in the perspective of learner autonomy. As he pointed out,

> [21st century] that's not something I've really looked at, you know, as a, as a, as a particular area of focus… I kind of approach it more from an autonomy type of perspective and you know, that maybe incorporates a lot of 21st century skills. (Henry, personal communication, Dec 2, 2019)

On the other hand, he also believed students should learn to be interdependent in learning.

Classroom observations. The following descriptions highlighted how Henry's teachers' beliefs and instructional practices were manifested in the actual classroom practices in conjunction with his stated beliefs. During the first classroom observation, students were preparing their first debate of the semester. Henry shared that the goals of the lesson were to transform the research discussion students had in the previous two lessons into a debate format and to write their rebuttals for the debate. In particular, students had to take a side (for or against) and cross-check the debate speeches and debate procedure with their classmates. They also need to decide the sequence of speaker in their own team, and work together with their affirmative or negative team to match their main debate arguments in order to state the rebuttals. The topics for the debate were compulsory voting and ban smoking in public. Each affirmative team or negative team have two or three members in one debate team. In addition, 'Idebate.org' was the main resource that Henry has directed the students to do their research, but some of the students also used other resources. Throughout the classroom observation, the highlighted 21st century skills instructional practice were stated in Table 26.

Throughout the observation, his strategy to foster collaboration skills in both activities (Research and reflection journal, and debate preparation) involved giving sufficient time and space for students to collaborate to complete the task. As observed, Henry provided clear instructions on the task (e.g. discuss in group; check negative points; assess debate language; compare your answers with teammates and decide which was the best to write on the board) and did not intervene much during the preparation time when students were doing the task. Students shared their research notes and journal with their classmates in order to create a joined product for the debate. Oftentimes, Henry only monitored the students by walking around the groups and checked if there was any obvious mistake for him to point out. He kept the time going. After

discussing the points of arguments and rebuttals, students had to write the points on the board. In this case, he also reminded students that everyone in their group, no matter affirmative or negative team has to understand the points and flow of the debate. As such, the lesson observed was highly dependent on students' collaborative work. Instructional practices that support self-direction skills were observed in the activities when students collaborated, shared, discussed, offered feedback, and revised their debate structure with their peers.

Nonetheless, an interesting fact observed in the lesson was the use of language. The usage of Japanese was relatively higher than the usage of English throughout the process of debate preparation. Students were using Japanese as a medium to clarify their debate content and flow with their peers. They also asked Henry questions in Japanese, but Henry responded students in English quite comfortably. When asked about his opinion towards the use of L1 in class during the post interview, Henry commented that he did not have strict rules towards L1 usage. Ultimately, he said the usage of Japanese was necessary to reduce confusions between the students in so to smoothen the debate preparation because the structure of the debate may be new to the students. He said,

> [Explanation/ debate preparation] takes a long time. I don't expect them to really be using a lot of English at the moment, especially when we're doing the mechanical. Yeah. So I think at the beginning when they were just sort of discussing what they had prepared. There was a lot more English, but then when we got later into the class, and we're checking, and I was pointing out where they had misunderstood and where they needed to collaborate with the other debating team, that's where they got confused. That's where they needed to use Japanese to work it out. So, you know, I'm quite happy with them to do that. So from my kind of perspective, like I said, I sort of use social cultural approach. so that's where I get most of my ideas from. And, you know, one of the important concepts in social cultural approaches is mediation. (Henry, personal communication, Oct 31, 2019)

Henry indicated, classmates, the materials and Japanese language were tools of mediation in learning. This interpretation, the meaning of mediation can be observed in the following statements:

> … [is about] how do you help the learner, understand the new language points and how do they understand and try to implement what they have to do in second language… some of the materials that I use call mediation, the models

> that we look at, the debate scripts that they've looked at the materials, you know, that's kind of mediation. (Henry, personal communication, Oct 31, 2019)

> One of the things I really want to focus on is the peers as mediation… they've got that idea o peer role models and yeah, peer support. They're all around the same level of, you know, they have similar levels of understanding. But some students understand more than others. So when they communicate…hopefully they, they gradually moving towards the student who knows more. (Henry, personal communication, Oct 31, 2019)

> They're using Japanese to understand English. Yes. So I don't mind that. And [it] fits into some skills about multilingualism, plurilingualism, translanguaging… in the classroom… using more than one language to create meaning and negotiate meaning. (Henry, personal communication, Oct 31, 2019)

In the second classroom observation, students had to do the actual debate. There were quite a number of instructional practices observed in the lesson. During the debate, students were asked to record their own individual debate for self-reflection and self-evaluation (student gave his or her cellphone to a classmate to help to record his or her performance). In here, the videotaping on students' learning experience may review his teaching beliefs of 'learning through experience' and 'the importance of self-reflecting'. During the post-observation interview, he articulated that the video recording actually served as a great tool for students to review their performance to further improve their skills in the following debates.

Subsequently, he also scheduled a personal consultation with his students to offer individual feedback on the debate after the whole debate was completed. When asked about why he included a personal feedback consultation during the post-observation interview, he said this initiative was due to his past teaching experience in this course. When he first taught this course at the beginning years, he stated that he only offered significant freedom for students to direct their learning path and goal-setting as students had higher proficiency level in the past. However, sometime later, he found out that his students actually expected him to give more feedback or direction and evaluation on their learning progress. Therefore, he started this consultation with the students to offer a more personalized feedback on students' learning. He said, during the

consultation, he gave feedback based on students' self-evaluation, questions and opinions about their work.

On the other hand, the component of reflection plays a great role in his lesson. As observed, the lesson often begins with a reflection at the beginning of the class and end of the class. He shared that students have a clear rubric or questions to write about in the reflection. There were also some questions which directed students to set goals for their learning. He explained the purpose of using reflection in his class was related to his beliefs towards learner's autonomy because he wants the students to take the ownership in learning. At the same time, this reflective activity that he designed resonated his other teaching practice, as he tends to only set a rough structure for students to follow. On a similar vein, this interpretation can be evident in the statement follows: "my main belief is to just have a structure that the students can have quite a bit of freedom within to express themselves and to set their own goals, reflect on those goals" (Henry, personal communication, Dec 12, 2019).

In third classroom observation, Henry indicated that the main goals of the lesson were to have students to discuss their work and provide feedback; to do goal-setting for the next debate; to form a new debate team; to select their roles and debate topic; to work in a team for the next debate. The first activity was to have students to exchange their notebooks to read on their classmates' reflection in order to provide comments or to ask questions to their classmates about the previous debate experiences. The second activity was the 'research and reflection journal' session in which students had to set goals for the next debate on individually and shared in pairs. Before they begin the task, Henry offered some scaffolding questions for the reflection, such as "what points will you improve in your English in next debate? What would you like to improve in the preparation stage and presentation stage?" Then, students wrote their reflections, and shared with their peers.

Subsequently, the next agenda was to choose the next debate topic. Students opened the debate website using their phone, and read the 10 designated debate topics. Students had to read

individually and ranked the top three topics they are interested before they shared their choices with their peers. Once they have completed the task, they shared in pairs and then worked with the whole class to finalize or narrow down to two debate topics. The whole session was student-led interactions in which students shared and negotiated which topics they want to debate the most (by voting as well). So, after they have finalized the two debate topics, they formed a team and their role in the team. Then, they began the think further about the points of arguments or examples use for the debate in groups. At the end of the class, students had an end-of-class reflection activity.

As one can observed above, the entire third classroom observation was very task-based and student-centered oriented. When asked about Henry's opinion about the reflection task that he asked students to do. He answered the reflection consisted of two major systems: (1) the first reflection at the beginning of the class was to reflect what students had done in the last debate or lesson (e.g., how well they the debate, how they performed or their presentation of the debate speech), (2) the second reflection at the end of the class was to focus on what students can do better than they did in the past by setting specific objectives for improvement. He also mentioned that he has been experimenting incorporation of the CERF framework (the can-do statements) into his lesson for better goal-setting and self-evaluation. The integration of CERF framework, he mentioned, carries some institution imperatives.

Summary. The findings in the interviews and three classroom observations show evidences of congruity between his stated beliefs and classroom practices. His approach in using project-based learning allowed him to cover a variety of instructional practices in some of the 21st century skills. This finding supported the argument of high usage of project-based learning (PBL) teachers demonstrated more teaching and assessment of 21st century skills (Hixson, Ravitz & Whisman, 2012). Hence, this finding suggests project-based learning as an effective approach to develop students' 21st century skills. Throughout the three observations, his reported practices of 4Cs, self-direction, and global connections in the survey were identified in his actual

instructional practices, but some of the practices in the global connections have yet to be seen. Henry's beliefs and practice towards teaching 21st century skills were indicated as the reflection of his own core beliefs and practices towards socio-cultural theory and learner autonomy. He commented that even though he had not thought closely on developing students' 21st century skills, the exhibited instructional practices could be due to his core teaching beliefs.

Align with his core beliefs, how he maximizes students' learning opportunity in class was accredited to the student responses and the learning culture he is creating. His students interact, collaborate, decide, set goals, defend, and negotiate their learning path with their peers to create an end outcome or product. With the nature of his class (i.e., no coursebook), Henry relied his students to bring in the content to class so that he could focus more on of the procedural knowledge, which is to improve the language skills through debate. As observed, one worthy-developed 21st century skill was self-direction. Henry has created a reflecting class norm as part of the regular routine to promote student agency in class. This moment was seized to raise the awareness of students' agency by having students to write down their goals or to reflect their out-of-class preparation at the beginning and end of the lesson. The action of reflecting allows students to build a sense of dispositional dimension of student agency (Vaughn, 2019), which built students' intention and purpose in designing their learning. Thus, his core beliefs and practices echoed a student-centered spectrum.

Aside, he actually had a mismatched level of students in his class, and this finding negatively advocates that institution should be stricter when it comes to course enrolment. The mismatch of students' proficiency level is likely to cause unnecessary adjustment in teachers' work that supposed to cater the course to higher level of students. Hence, administrators should take this opportunity to understand the problem of mismatched of students' proficiency level to the course would diminish the expected quality of learning based on the curriculum design. At last, Table 26 below provides an overview of the overall observed 21st century skills instructional practices throughout the Henry's three classroom observations.

Table 26

The Observed 21st Century Skills Instructional Practices in Henry's Classes

Lesson Agenda	Interactions	Highlight of the 21st Century Instructional Practices**
CO1*		
Research & reflection journal (To begin class)	Write and reflect individually → share research notes in pairs	Critical thinking - c Collaboration – a
Debate preparation - For and against teams work together	Teacher instruction → Discuss in group → Write arguments on white board → whole class check	Critical thinking – e Collaboration – a, c, d, e, f Communication – e Creativity and innovation – b, d, e Self-directional – a, b, g
Debrief	Teacher instruction	
CO2*		
Pre-debate briefing	Whole class	
Debate preparation (practice)	Group or individual	Critical thinking – b, c, d, e Collaboration – a, b, c, f
Actual debate	Whole class (Debaters and audience)	Collaboration – d, f Communication – a, b, c, e Creativity and innovation – e Global connections – a, b Technology – a
Debrief HW – watch their own performance and do reflection	Teacher-instruction	Self-directional – e
CO3*		
Briefing – announce winner	Whole class	
Share reflection notes (HW)	Swap notebooks (read individually) → Share response (pairs)	Collaboration – a, f,
Research & reflection journal (Goal setting for next debate)	Write individually → pairs or group share	Self-directional – b, c, d, f Collaboration – a Creativity and innovation – b
Choose a new debate topic	Whole Class (Read individually → share in pairs	Critical thinking – f Collaboration – b Self-directional – b Technology – a, b
Debate preparation: Discussion on the new topic	Share in pairs	Collaboration – a, b Self-directional – c
Research & reflection journal (End of class)	Individual → Pairs	Self-directional – b, e

Note.
* 'CO' stands for classroom observation
** See Appendix K for the whole list of practices

Teacher 3: Lina

Teacher profile. Lina is from Canada and is currently an Associate Professor who is teaching two faculties in the university. She has taught in this university for 12 years, and she is now teaching courses related to English for academic purposes, faculty seminars, cultural related course. She had a Master of Arts in Teaching English to Students of Other Languages (TESOL) and a Bachelor of Arts in Applied Economics, minor in French. She is a bilingual who speaks French and English, and she also speaks conversational Japanese. She has been in ELT field for the past 28 years. She has a wide-ranging of interests but is particularly interested in intercultural communication, integrating language and culture, curriculum design, CBI/CLIL, and recently interested in educational cognitive neuroscience. She is an active member of JALT Pansig group called Intercultural Communication in Language Education (ICLE). She has been regularly attending, co-hosting workshops and educational events.

Table 27 illustrates her quantitative response. The use of instructional practices to develop critical thinking and collaboration skills had the highest mean score among the eight skills. In Q1, both critical thinking and collaboration had the identical average mean score of 4.00, indicating students were asked to develop these skills on the basis of 1-3 times per week. On the other side, the least attention skills shown in Lina survey was using technology as a tool for learning with the lowest average mean score of 2.50. Based on the quantitative result, the researcher paid close attention to these skills during the classroom observations; nonetheless, other practices were also observed to document the scenario of teaching 21st century skills.

Table 27

Descriptive Statistics of Lina's Survey Response in SECTION TWO

Skills/ Questions	Average Mean Score (5-point Likert Scale)	
Q1: In teaching of your TARGET CLASS, how often have you asked students to do the following Q2: To what extent do you agree with these statements about your TARGET CLASS?	Instructional Practices (Q1)	Teachers' Beliefs (Q2)
Critical Thinking	4.00*	4.00*
Collaboration	4.00*	4.00*
Communication	3.00	4.00*
Creativity & Innovation	3.40	3.33
Self-Direction	3.71	4.00*
Global Connections	3.33	3.33
Local Connections	3.60	3.67
Using Technology as a Tool for Learning	2.50	3.00
Total:	3.44	3.67

Note.
'*' sign indicates the highest value
Question 1: 1 = almost never; 2 = a few times a semester; 3 = 1-3 times per month; 4 = 1-3 times per week; 5 = almost daily
Question 2: 1 = not really; 2 = to a minor extent; 3 = to a moderate extent; 4 = to a great extent; 5 = to a very great extent

Overview of the observed class. The class that Lina's survey response based on was an English for academic purpose (EAP) course. This particular EAP course is taught by three other lecturers in the university, and Lina is teaching one of the classes. This EAP course also lasted two-semesters and it is designed for the freshmen in the Faculty of International Liberal Arts. The course highlights extensively on the skills such as academic writing, vocabulary, and grammar, and strategies (time and stress management). In addition, the main goal in this course is to equip students with essential English skills to function in an English medium program.

According to Lina, students also take this course as a preparation course to bridge their English proficiency level to study aboard in the following year. She informed that the group of students she has in this class was considered good in English, but they need more preparations to excel in English medium program. In this class, students meet the instructor twice a week, and the medium of instruction is only in English in which students need to be prepared to speak actively during each class. However, as indicated by Lina, some of the students in this class also taking other courses that taught by her. Thus, she sees some of the students more than four times a week. The estimated time for class preparation and homework for this class are considered quite challenging. Students are required to have at least 6 hours preparation time outside the class. The main coursebook used for this class is *21st Century Reading: Creative Thinking and Reading with TED Talks Student Book 3* by Laurie Blass, Mari Vargo, Ingrid Wisniewska.

In addition, since students meet Lina twice a week, she has organized the lesson focus into two parts. The first meeting focuses on the textbook, and the second meeting focuses on the academic writing skills. She also assigned a great amount of independent study due to the nature of this course. Students have set routines such as adding certain number of words weekly into their vocabulary development project, writing weekly learning journals, and doing extensive reading and listening. The assigned homework includes doing exercises in the textbook, writing tasks, and writing news reports and timed essay. On the other hand, the classroom that Lina has is not in the normal classroom, her class is allocated in the CALL room that filled with movable chairs, computers, computer monitors, and whiteboard. Figure 8 shows the CALL room layout, and it has four columns of computers with two runways. The room seemed to contain some amount of barrier to teaching and learning as students are not be able to see their classmates at the other runway due to the blockage of the computer (which is above head level). Students could only interact with classmates besides or behind in the same runway. When asked why the class was held in the CALL room instead of a normal classroom, Lina said it was due unavailability of the classroom, but also a convenience to her follow the class schedule. During the three

classroom observations, the attendance of each lesson was 13 students on the first classroom observation, 12 students on the second, and 13 students for the third.

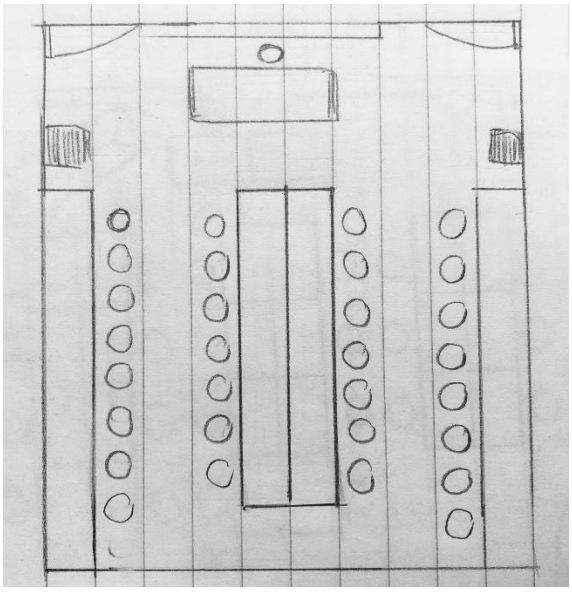

Figure 8. Lina Classroom Layout

Core teaching beliefs. One of Lina's core teaching beliefs is to build independent learners. She explained that building students' independent study habits is necessary to allow students to further expand or explore their own learning with the tools they possess. This can be evident when she said,

> [students] have tools that they can rely upon to either help them continue learning for themselves or know how to search out for information in order to continue their learning in whatever they choose to do. (Lina, personal communication, Oct 24, 2019)

To her, the tools could mean the strategies, skills, attitude, knowledge that aid student learning process. She shared an experience in which one of her students used to have negative attitude towards English and underperformed in her class. When this student was in the senior year, she was surprised to find out the student was happily using English with her, and that made her think the student has internalized the used of English as a tool for communication. Not only that, this belief is observed in her expectation in the workload she offered to students to develop independent study habit, such as the weekly vocabulary development project and extensive reading and listening. She hoped that by setting up these self-study routines, it will help students

to achieve the essence of independent learning. In addition, she also believed the importance of students asking questions as a necessity to promote self-directed learning. This finding can be indicated in her classroom observation 1 post-interview:

> Because the ability to ask questions is how you can be a self-motivated, self-guided learner. Think you have a question about something. So you go to try and find the answer. But if you're just always listening passively. There's no growth, you're only learning in response to somebody else's demands. (Lina, personal communication, Oct 31, 2019)

Similarly, it is also Lina's beliefs that students' learning is built upon experience and reflection. She talked about experiential learning during the initial interview. She stated experiential learning means guiding students to do reflection in so to help them better prepared for upcoming learning:

> Sometimes it's a case of […] you know, you're here, you've got this activity, do this activity. But then, you say, okay, how did how well did you do, what went well, what didn't go so well. Sort of reflecting on it. And then from that reflection, you make plans for the next time. (Lina, personal communication, Oct 24, 2019)

In addition, she perceived that one way to allow learning occurs is when students are put into the situation to execute the learning, otherwise learning is just merely a theory they have learned. This thinking signifies a certain degree of task-based learning approach in which her role is to help students learn by doing. She articulated that reflection help students to connect the present learning and past learning to guide the future planning; for instance,

> The next time you have that kind of activity or experience… it gives you strategy to try and improve… if I was in this situation, what would I do? How would I go about it? And then you get in the real situation and it a lot of times… I know, here's the ideal and this is the reality. Yeah. And it's kind of hard to connect the two sometimes. But if you've been through an experience, you can either, you know, use your experience to help bring it into a reality or, you know, any kind of experience you have has an impact on the way you look at things. (Lina, personal communication, Oct 24, 2019)

Goals in teaching English. The goals Lina has agreed with in the online survey were to develop knowledge of the language skills, foster a sense of social responsibility in students, and develop competent language users. During the initial interview, she emphasized that she wants to

help her students to be aware of using English as a tool to communicate with others. Since the goal of the course is to prepare students to survive in an English medium program, she focused on giving tools that consist of tips and strategies, especially communication strategies, to help students to develop communication competence. She said, "I introduce, like communication strategies… like how to give (opinion) and support their opinions." (Lina, personal communication, October 24, 2019). One of her main strategies in teaching communicative strategies is to ensure the message and meaning is appropriately conveyed as she commented that students often find it difficult to follow in a conversation. Thus, an example of meaning-focused conversation technique observed in her classroom observation was the active listening skills which involved asking question, echo, react, and follow-up question (QERF technique). She said by focusing on meaning and functions of the language, it will help students to communicate better.

Moreover, she also pays attention in helping students to improve their linguistic competence as well as integrating cross-cultural communication aspects:

> I'm really stressing, encouraging them asking for clarification, checking understanding by summarizing, making inferences, making connections, either introducing their own related comment to when they're hearing or making an inference like you said this and this they sound like they're similar ideas or… (Lina, personal communication, Oct 24, 2019)

Her intention to focus on linguistic competence in the context EAP course highlight great extent of synthesizing skills that leads to development of critical thinking skills.

Influence on beliefs and practices. During the initial interview, Lina shed lights the four aspects of influences on her beliefs: prior schooling, teacher education, classroom practices, and educational context. Above all, she highlighted the influences of her prior schooling and teacher education. Lina used to study in a French-immersion school when she was young, and her parents only speak English. She mentioned that she was lucky to have great teachers in her young age in which those teachers tend to have a variety of technical aspect to help students to achieve the learning objectives. As she explained,

> I think a lot of my beliefs about teaching and what I do in the classroom has come from my own experiences as a language learner… I was very lucky. I had some very, you know, resourceful, innovative teachers along the way… I was a French immersion student in XXXX and my class was what we call the guinea pig class. We were the very first class in my city. So they would bring in the more experienced… innovative teachers, because they wanted to keep the program going. And because my class was, you know, they had tried to, they wanted the program to work that my first group, my group of classmates were sort of been handpicked to join the program. And so there was a lot of very intelligent people in my class. So I was not necessarily the top of the class but the teachers that came in were ones that really knew what it meant to teach… they knew what their goals and objectives were. And they didn't always follow the traditional methods. they would they would have different ways of getting at those core learning outcomes, different ways of teaching different activities or methods, keeping in mind the end goal… (Lina, personal communication, Oct 24, 2019)

Hence, her 'apprentice observation' (Lortie, 1975) as a learner helps her to thrive in being innovative in teaching. As for teacher education, findings indicated her approaches towards teaching were considered as eclectic. She expressed,

> I have never really followed one particular approach. I sort of made my approach… even in my master's program and we're to write a paper, we had to either write about our own approach or a particular approach or method, which we really believed in. And I was pulling elements from different approaches. So I've always looked at not only following my particular way of doing something, but I've looked at what are the students' needs. Is this working? Okay, this is not working. What's another way I can get it this. (Lina, personal communication, Oct 24, 2019)

Beliefs on teaching of 21st century skills. In the survey response, Lina stated her beliefs towards teaching of 21st century skills embodied internalising learning, goal-setting, self-reflecting, and integrating student experiences in learning. During the initial interview, when asked about how she would encourage 21st century skills in her class, she replied that the good thing about the class was the coursebook itself is a 21st century reading-theme coursebook that focuses on creative thinking and reading with authentic materials (TED Talks). As such, she seemed to be well aware of teaching 21st century skills to students. Based on the observations and interviews, the coursebook helped her to incorporate and address the development of 21st century skills among the learners through the content. In fact, having a 21st century reading coursebook guided her teaching content and focus to highlight the 21st century skills. For

example, the chapter in the coursebook offer a 21st century reading topic such as cyborg technology and barrier and bridge and included a TED talk video to expand the content exposure to students. In this sense, the TED-talk videos that spoken by experts in the field help students to connect the issues to the reading unit. The exercises in the unit offered questions that scaffold student thinking and deepen their understanding of the topic through critical thinking questions. For instance, the critical thinking questions involve making predictions, evaluating an argument or pros and cons of the ideas, synthesizing information, and reflecting topic to an own experience. In this respect, at the end of each unit also offered a research project prompt for students to expand their knowledge via collaborative work, but Lina only use the research project prompt as an individual work than a collaborative project.

In terms of building collaboration skills, she claimed students often face difficulty in collaborative learning especially working with groupmates who have distinctive personalities and she described the solution to such difficulty was learning about cross-cultural communication. Hence, Lina's anticipation of students' encounters thus shaped her responsibility in teaching this skill. During the interview, she also illustrated some of the questioning technique to aid cross-cultural understanding:

> It was like, you know, what are the facts of the situation? How could it be? How could other people see it? How do I see it? And what does that tell me about my preferred style? And then knowing how is figuring out strategies to either solve the problem in the moment, or how to address it and try and solve it for the next time. And so they're, you know, they we had to help develop some of these strategies, whether and, and tried to connect it to their own experience. (Lina, personal communication, Oct 24, 2019)

Lina also expressed her beliefs towards using technology as a tool for learning when she mentioned she uses Google classroom to manage her classwork. She mentioned she has just started using Google classroom this year and it has been a handy tool for her to collect, assess, and check students' homework and progress. She could set assignment reminders or automatic announcement to her class with just few clicks. She claimed technology such as Google

classroom or any LMS (learning management system) assisted much of her teaching and learning process as well as saving time in some of the technical side in teaching. As she commented,

> I can set up [folders] process essay, on vocabulary quizzes, textbook, assignments, independent writing, peer review, I can create categories. So the students can find, they can see the syllabus that way. I can also you know, it's got the people in the class… The technology is just making my job easier. Yeah. So then I can click on here and that takes them directly to the quiz. And then, you know, the quiz. I can access it through Google Forms. But and I can also as a teacher, any submissions they make. It also automatically creates a folder in Google Drive. (Lina, personal communication, Oct 24, 2019)

All in all, Lina's understanding towards teaching of 21st century skills seemed well-explained with supported pedagogical rationales such as illustrated questions above. Even though she did not say which skills are 21st century skills, her statements agreed with the skills stated in the survey as important for the 21st century learners.

Classroom observations. Based on the three classroom observations, the most frequent developed 21st century skills and appeared in most activities were the critical thinking skills collaboration skills, and communication skills. The descriptions below present how Lina' teachers' beliefs and instructional practice were manifested in the actual classroom practice as well as the relevance with her stated beliefs.

During the first classroom observation on Wednesday, the agenda was a textbook-focused lesson. Lina stated her plan of the day was to do vocabulary quiz, textbook homework share, and discussion. As Lina mentioned in the pre-interview, textbook exercises were assigned as a weekly homework for the students, and students attend class to share, discuss and contextualize their understanding with their peers and her. As pointed by Lina,

> They [students] come and discuss and share their answers and try to help each other understand [the topic] and then I will ask questions to take it further as the case may be. (Lina, personal communication, Oct 30, 2019)

The ways of working in the class show frequent usage of collaborative learning. On that day, students were discussing about different types of personalities, such as introverts and extroverts. The focus of the class was to build up academic discussion skills, Lina utilized questioning strategies to promote active listening and discussion skills. At the beginning of the class, the

vocabulary quiz was a peer-assessment in pairs. Students exchanged the list of vocabulary they have created and tested each other orally on the vocabulary's knowledge. The list of the vocabularies was created based on students' individual interest, and the words can be the unknown words they have encountered in reading other texts or contents. Then, in the textbook homework-share, Lina used interactive group discussion and whole-class elicit to manifest the learning. Her roles as a teacher were more like an organizer, prompter, and observer to manage the classroom. In addition, the textbook questions also consisted of critical thinking questions to assist development of critical thinking skills. However, Lina also claimed students need to practice how to deliver their understanding to their classmates by doing active listening and comprehension check to develop the particular critical thinking skills such as inferring and evaluating:

> There are some critical thinking questions that they have done for homework which is inferring and evaluating, but I'm going to have them focus on being able to unpack their ideas so others can understand and active listening, which is like clarifying, checking, understanding by summarizing, making connections. (Lina, personal communication, Oct 30, 2019)

Moreover, in terms of using technology as a tool for learning, as mentioned in the belief sub-section, Lina uses Google classroom to manage the class work. One of the instructional practices to develop this skill revealed in her class. In the writing assignment, one of the tasks students need to do is a peer-review. Students need to share their writing with a classmate for review via email, and the reviewer has to comment and send it back to the writer. Once the writer has received it and revised it, he or she will upload to the assignment folder in Google classroom. Hence, technology was using as a tool to support collaborative feedback. Students can also monitor their assignment submission and progress in Google classroom. During the class, a digital timer was used to help Lina manage her lesson agenda. Her emphasis on collaboration, communication, and critical thinking skills were evident in her classroom language or instruction; for instance,

> Lina: I want you to work in groups to unpack the ideas. If you don't understand; ask for clarification; check understanding. How much time do you need? 5 min, do you think is enough?
> Lina: The key thing is about understanding, check comprehension. Decide your group speaker - 1,2,3,4.

When she did the whole-class elicit, she also tried to understand the metacognition of how students reach the conclusion of the answer and checking whether the whole class agree to an answer; for instance,

> Lina: What did you evaluate? Who would like to go first?
> Lina: But why do you think so?
> Lina: Does everybody agree with that?
> Lina: Anything else can we add?

The language she used above illustrated some of her questioning strategies to enhance students' reasoning skills. In terms collaboration skills, the following excerpt showed how she asked students to offer peer-feedback, and this practice highlighted instructional practice (f) 'give feedback to peers or assess other students' work. For instance, once students finished discussing the answers with their pairs. She asked students to do peer-feedback:

> Lina: How will your groupmates unpack the ideas – think for 1 min and share what you like about your partner. For example, I heard…
> Lina: Check with your partner on what I said or what we just shared earlier.

Thus, her teaching practices involved multiple times of peer-checks to ensure students are getting rich comprehension in the class.

During second classroom observation, the lesson agenda was to do a news report share and writing homework share as Friday class focuses on writing. Similar to the previous lesson, Lina highlighted extensive use of pair work, active listening, and some of the 21st century skills. The first task, news report share, has the purpose of encouraging students to read news online to be aware of social issues. Lina explained, the news report activity also aimed to promote critical thinking skills and build up academic response. In particular, students practice synthesizing skills and respond the news on academically as well as practice APA citation and referencing. As indicated in the interview, she said,

> [news share] It's sort of an assignment. where I have them, they choose a topic from the news and they find two articles from different perspective. They have to synthesize that to better understand the new story, and then they have to react to it academically… The news share is to give them a sort of a focus for sharing the work that they're doing outside, but it's an activity designed to help encourage, synthesizing of information and to be able to pull out essential information in terms of a summary of the article with cited sources, so it's sort of a quick, very short thing for practicing APA citation referencing. And then they also have to academically react. So they have to structure their opinion in more academic way with evidence to support practicing this, this pattern of how to present their ideas. So it's kind of in depth and I do have something here. The rationale behind it is, you know, to help work on these particular skills, issue summary, academic reaction, structure and clarity written expression, and then academic integrity and APA. (Lina, personal communication, Nov 8, 2019)

Hence, based on the statement above, there were focuses of developing critical thinking skills, self-direction skills, and academic writing skills. Additionally, the rationale of doing a news report share also help to build students' independent reading habit. As she pointed out,

> It's to make them more aware of what's going on in the news. And they've developed a habit to watch the news and then think about it critically, not just to not just to sort of listen and go… but try to connect to it in some ways and I purposely did this because they're in the program. And I wanted them to build that habit on following the news, reading. (Lina, personal communication, Nov 8, 2019)

She added, students used to have only one article in the previous semester, but she added one more article (which means two articles) in this semester to challenge students' ability to synthesize the articles. In a sense, she made this decision because she thinks synthesizing skills are important skills as a 21st century learner. This reason can be evident when she articulated,

> I've added the extra challenge of two articles to practice synthesize, which I think are important skills in 21st century being able to, you know, hear information, think about it critically connected with other sources of information, they have to either broaden their knowledge or to be able to think more critically about what they're listening to, rather than just accepting it because somebody said it. (Lina, personal communication, Nov 8, 2019)

On the other hand, a more in-depth active listening task that promote collaborative feedback were identified in the classroom observation. For instance, once students shared their news report to each other. Lina gave students these instructions to evaluate the effectiveness of news report share, such as

- How well your partner speaks about the news?

- I want you to share one point which is good about it and one point that can be improved.
- For listening – think about how you felt about your listener, did they make inference or connections about your comments?

For this reason, she was able to guide her students to think critically and reflect on their learning process. During the news share, students also talked about both world and local news, and that's related to global and local connections. However, Lina did not purposely indicate on these skills as they were embedded in the activity.

In the third classroom observation, the lesson agenda was similar to the lesson agenda in the first classroom observation – a textbook focused lesson. The activities included vocabulary quiz (oral), active listening (three discussion questions to introduce the unit theme), and textbook activity. In the textbook activity, students had to practice the pre-reading and reading strategies (e.g., identify the main ideas) and learn about what astronauts do to overcome fear. The first activity, which was the classroom set routine, was done in pairs. In this lesson, the unit was related to 'fear'. In order to make connection to students learning, Lina created these two questions for students to discuss in groups: (1) what kind of risks or dangers do you face in your life?; what are some techniques or strategies do you use to try and overcome these fears?, and (2) what are some of the most dangerous occupations?; what do you think attracts people to do the work?. When they finished the discussion, Lina had students to talk about their learning through active listening task. Students talked about how well their classmates shared their ideas and how they responded in the conversation. Subsequently, she did a whole class elicit on the content and discussion before moving to the textbook's reading section. Overall, the main teaching roles manifested in the class were facilitator and organizer. In particular, she kept the time going, and asked students if extra time was needed for each activity. During the whole class elicit, she tried to connect the content to students' situation (e.g., are you applying the skills into your other class; what can people do with fear). All in all, she has highlighted ways of helping students to think about the content in their own situation and some common situations in the society.

Summary. The comparison and analysis within Lina's explanation of her beliefs and practices and observed instructional practices in the classroom observations as well as her survey response portrayed strong connection. The 21st century skills she reported in the survey, such as critical thinking, collaboration, communication, and self-direction were all visible in the actual classroom observations. The extent of teaching 21st century skills to students in her class can be attributed to her core teaching belief in helping students to become independent learners through a variety of self-study tasks and classwork. Simply put, encouraging independent learning may help to build lifelong learning skills and that leads to development of life and career skills in the 21st century framework.

Throughout the multiple interviews, she was able to reason her thinking by providing example of tasks, explanations or situations to justify her intention and actions taken in the classroom. Above all, critical thinking skills were highly emphasized during the actual classroom observations as students were constantly asked to analyse, re-assess, and synthesize the given information or answers given from their peers to validate their interpretation and intended or unintended meaning. In other words, Scriven and Paul (2007) suggests students who think critically are better or more effective problem solvers as they evaluate the breadth and depth of their thinking to inform appropriate decision.

Last but not least, the findings revealed three reasons (i.e., the types of students, coursebook, and the congruity in between her beliefs and practices) that helped her to endorse or exercise her teaching beliefs (including beliefs towards teaching 21st century skills). First, as informed and observed, Lina's students are considered proficient in English and will go to study abroad in the following term; thus, her students' mentality towards active learning were relatively high and it helped her to prompt further on some of the 21st century skills. Second, the use of 21st century reading coursebook makes teaching convenient to further develop some of the 21st century skills. Third, with her teacher education background that focused on reflective teaching practice helped her to better understand her own beliefs and actions; thus, showing congruity in

beliefs and practices that aid the desired learning outcome. The last reason was often indicated in the literature as Richards and Lockhart (1994) claimed, reflective teaching practice serves the means of professional development to better gauge teachers' decision making in the teaching and learning process. Lastly, Table 28 below provides the overview of the observed 21st century skills instructional practices Lina's classes.

Teacher 4: Noah

Teacher profile. Noah is currently a Lecturer in the School of General Education in the university. He is from Japan and has been teaching English language courses and some other non-English related courses for the past six years. He has taught in this university for four years. He speaks both English and Japanese. He had a master degree in TESOL and a bachelor degree in Education and he is the alumnus of the university. Additionally, he has a teaching license which qualified him to teach junior and senior high school English. His specialization and research interests include learners' autonomy and English for Academic Purposes. He is an active member in JALT Pansig and he will be attending the TESOL International Conference in 2020.

As Table 29 shows Noah survey response. the three highest average mean scores of the instructional practices was global connections (M = 4.33), communication (M = 3.80), critical thinking (M = 3.50). On the other hand, the lowest rating use of instructional practices was local connections (M = 1.40). For question 2, the belief extent scale has the highest average mean score on collaboration skills (M = 4.67).

Overview of the observed class. The class that Noah answered in the survey response was the same course as Chloe's observed class; however, the only difference was that target students for Noah were one level higher in English proficiency. To restate, General English communication is a two-semester compulsory course designed for all freshmen regardless of their majors. The current class is an intermediate level; thus, the English language proficiency level of the students has TOEIC score range in between 400 to 480. Students meet the instructor twice a week on a 90-minutes lesson over 15 weeks in a semester. Across all General English

Table 28

The Observed 21st Century Skills Instructional Practices in Lina's Classes

Lesson Agenda	Interactions	Highlight of the 21st Century Instructional Practices**
CO1*		
Vocabulary quiz	Pairs	Critical thinking – c, Collaboration – a Communication – a
Textbook activity 1 – HW – academic discussion	Group of 4 → whole class elicit	Critical thinking – c, d Collaboration – a Communication – a, d Self-directional – g Local connections – a
Textbook activity 2 – HW – academic discussion	Group of 4 → whole class elicit	Critical thinking – b, c, f Collaboration – a Communication – a, d Self-directional – d
Textbook activity 3	Teacher-centered	
Assigned HW		Technology – a, f, h
CO2*		
News report sharing	Pairs Think individually Pairs	Critical thinking – a, b, c, d, e Collaboration – a, f Communication – a Creativity and innovation – e Self-direction – b, d Global connections – a, c, d, f
Academic writing (Persuasive process essay outline) – peer review	Pairs	Critical thinking – e, f Communication – a Self-direction – e, f, g Local connections - a
Assigned HW – Peer review on the writing task (send feedback to the writer	Peers	Technology – f
CO3*		
Vocabulary quiz	Pairs	Critical thinking – c Collaboration – a Communication – a
Discussion	Pairs Whole class elicit	Critical thinking – c Collaboration – a, f Communication – d
Textbook activity	Groups Pairs Whole class check	Creativity and innovation - a

Note.
* 'CO' stands for classroom observation
** See Appendix K for the whole list of practices

Table 29

Descriptive Statistics of Noah's Survey Response in SECTION TWO

Skills/ Questions	Average Mean Score (5-point Likert Scale)	
Q1: In teaching of your TARGET CLASS, how often have you asked students to do the following Q2: To what extent do you agree with these statements about your TARGET CLASS?	Instructional Practices (Q1)	Teachers' Beliefs (Q2)
Critical Thinking	3.50	4.00
Collaboration	2.67	4.67*
Communication	3.80	4.00
Creativity & Innovation	2.80	2.00
Self-Direction	3.43	3.00
Global Connections	4.33*	4.00
Local Connections	1.40	1.00
Using Technology as a Tool for Learning	2.67	3.33
Total:	3.07	3.25

Note.
'*' sign indicates the highest value
Question 1: 1 = almost never; 2 = a few times a semester; 3 = 1-3 times per month; 4 = 1-3 times per week; 5 = almost daily
Question 2: 1 = not really; 2 = to a minor extent; 3 = to a moderate extent; 4 = to a great extent; 5 = to a very great extent

communication course, the main goals are to develop student academic language skills and study skills required for studies in English. Estimated self-study time outside of class is three hours, including the time for homework or assignment. According to the syllabus stated in the portal, students who enrolled in this course may have a level equivalent to a CEFR A2. By the end of this course, students should have an equivalent level of low CEFR B1. The coursebook used in the intermediate level is *New Language Leader: Pre-Intermediate Coursebook* by Ian Lebeau and Gareth Rees 2014. According to Noah, one of the main components he highlighted in this

class is the research project. Students research a topic individually based on a set of themes for four weeks and showcase the learning via presentation to their classmates.

The classroom that Noah uses is the same facility that Chloe and Henry use. The classroom has movable chairs and desks, and it is equipped with one large size white board at the front and a movable smart board that can connect to any electronic device such as laptop or iPad. The maximum capacity of student's enrolment in this class is 24, and Noah has 22 students enrolled in his class and majority of students are from the Education major. As for the classroom layout, Noah has the traditional seating in rows (see Figure 9). The seating arrangement has three major columns and three to four rows, and each column has two desks. The attendance in the four classroom observations was 20 students on the first classroom observation, 20 students on the second, and 20 students for the third, and 21 students on the fourth.

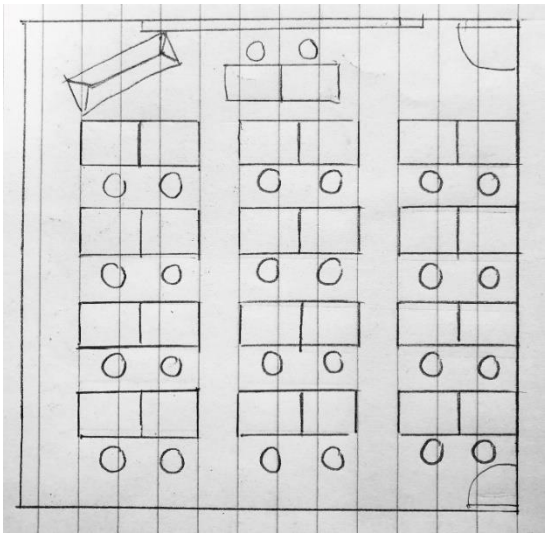

Figure 9. Noah Classroom Layout

Core teaching beliefs. Noah stated beliefs was associated to the concept of learner autonomy as he is interested in this area for the past five years and he had conducted a research on this area. However, during the initial interview, his explanation about his core teaching beliefs was not thoroughly articulated nor elaborated. He answered his core teaching beliefs as to help students to improve their English ability and to develop learner autonomy. When asked about his explanation on the concept of learner autonomy, he articulated as students having a device that

can help them to learn by themselves in the future. He said that the device does not necessarily mean the electronic devices, but he said,

> It's kind of functions that improve students' learner autonomy. Those are… I don't say machines but some... as I said that setting rules. Following rules… (Noah, personal communication, Oct 29, 2019)

As indicated, his explanation on the device was not clear, but perhaps the concept can be understood as study tools or skills or motivation to help learners to be aware of their own learning. His knowledge of learner autonomy resonated student's responsibility in learning. To raise student's awareness of autonomy, he claimed the importance of setting rules and to ensure students are following the rules. This perception was evident when he said,

> Setting rules and making sure what the rules are and following, and then I always like checking in with them, like how many absences they have. And then if there is a student, his or her attendance is really low, and I'll definitely tell them like this is your score and this is your attendance. So you may want to come more often or encouraged [them] in participating class more, then they can get extra points or like monitoring their learner development is important for me. (Noah, personal communication, Oct 29, 2019)

Goals in teaching English. In the survey response Noah answered, his agreements in the goals in teaching English were to develop knowledge of the language skills and competent language user, to foster a sense of social responsibility in students, and to develop a sense of learner autonomy. Nevertheless, his explanation on the teaching goals he intended to achieve was not clearly highlighted and appeared vaguely in his statements during the interview. For instance, when asked about his ultimate goals in teaching, he responded as the goals based on the institutions factor or syllabus goals rather than the goal itself. This can be evident when he answered,

> Goals and objectives for myself, dictate everything. So, if we have sets of goals and objectives, then that's how I make decisions… I do not want to deviate from what the goals and objectives saying… (Noah, personal communication, Oct 29, 2019).

Hence, his belief on the goals in teaching English is highly influenced by what the school wants him to do in his teaching. The following statement also shows a certain degree of difficulty in articulating his beliefs:

> … ultimate goals, to my students… that's a good question…[thinking]…I don't know. That's a good one. But my answer is definitely the goal and objectives in the syllabus, and that's those are the things that I'm expecting to teach. And that's where the university's heading towards. So if I, I think it's good if it's a good for university, and eventually if it benefits my students. That's what I'm gonna do.(Noah, personal communication, Oct 29, 2019)

The statement above also resembled his previous opinion on the goals of the institution. When the researcher paraphrased the question to prompt for further response, such as "why do you think students should learn or study English?" He responded that students do not necessarily learn English. He said,

> To be honest, students do not have to learn English at all, in my opinion. Students are asked to learn or mandated to learn English and I don't like this. Students have to pick the language they want to speak. And then, English is the process of expanding themselves, I guess. I know it's a must for university, for undergraduate students, I thought English is the best language, it's a great language, it has power. And then if I can speak English, I can do whatever I want. If I learn, the more I learn English, the better, the more fluent I will be and I learned that many different things not only English, but I learned so much knowledge and and then that told me that, maybe English is just a tool to get more information rather than Japanese for sure. I can access different, different sources of knowledge through English. So if students can do that process by learning English that would be great. That's, that's my hope for my students. (Noah, personal communication, Oct 29, 2019).

Despite such a response, his goal in teaching English can be interpreted as to expand students' knowledge of the world.

Influences of beliefs and practices. In terms of influences, Henry's beliefs were influenced by his teacher education, prior experience as a learner, educational context (institution, and students), and classroom practices. First, as mentioned above, his beliefs on the concept of learner autonomy was established based on his research interest in his master's program, which was his teacher education. Second, for prior schooling, he shared he used to learn English in a monotonous or non-interactive way; hence, he sees low communicative or non-interactive way as ineffective and discouraging. He said,

> What I did in the classroom [previous learning experience] was grammar, vocabulary, reading, no speaking… that's not the thing that I expected from the program. So I was kind of discouraged a little bit by following this program, but I was playing soccer around the time… so hard, so I kind of ignored

> learning aspect of learning part… (Noah, personal communication, Oct 29, 2019)

As for educational context, in the aspect of students, his perception of influence on instructional decision making was influenced by the needs of the students. For instance,

> So, if students want to speak English more, I try to combine input activities and output activities at the same time, or I asked my students to do more basic activity, a video practice at home. Then when they come in to classroom they can practice those. It's kind of flipped classroom. (Noah, personal communication, Oct 29, 2019)

Similarly, in terms of instructional decisions, he shared that sometimes there was a mismatch in between teachers' ideal goals and students' needs. He explained,

> I think what students should learn and what I want to learn should be different. sorry, what I think is effective should be different. We cannot, we cannot talk about learning without institution, I guess. students are in university. So they have, they will be part of some classes, right. And the teacher of the class and then school give me some objectives and goals and objectives for me, for our students. So what I'm expected to teach and what students are going to learn, there's a little gap and guess. (Noah, personal communication, Oct 29, 2019)

In the statement above, an interesting belief was captured. He seemed to believe institution precedes learning as his statement saw institutions as politically set up to shape student learning. This opinion reflects the reality of hidden agenda or power relation or education policy in dictating the direction of learning, and the exclusiveness of learning occurs in university. In turns, institution goals or quality of the program or curriculum or syllabus design play a crucial role in shaping the learning outcome.

Beliefs on teaching of 21st century skills. In the survey response, Noah answered the open-ended question about the beliefs towards teaching of 21st century skills as something he has never focused on as a set of skills for 21st century. He wrote "[I] have never intentionally paid attention [on] 21st century skills as a set of skills, but I incorporate some of the skills laid out in the questionnaire". This statement echoes the common issue about the conceptualization of 21st century framework in the literature, indicating 21st century skills are not even new to the 21st century; therefore, many teachers did not focus on this education reform (Silva, 2009). When asked about his beliefs about how 21st century skills should be developed in students during the

initial interview, he indicated a similar answer to his survey response. He claimed he did not focus much on teaching the "21st century skills", but he has incorporated most these skills (shown in the questionnaire) in his classroom. However, he believed all of those skills are very important to develop in students.

Classroom observations. Among the three classroom observations, the salient instructional practices identified were in terms of collaboration, communication, and self-direction skills. There were also some other instructional practices that he used in class that were not measured in the survey. During the interviews, Noah has indicated that he utilized research project to foster learner autonomy in students, and this activity reflects his core teaching beliefs. In this context, learner autonomy shed lights the instructional practices in developing the area of self-direction. He said that, in every four weeks, students chose an example of topic to pursue based on the themes he offered. In order to effectively facilitate the preparation for research project, he has taught students the framework of bloom taxonomy in the previous semester. For instance, if the research theme is about LGBT, students research the information based on the bloom taxonomy. Students first look up information to understand what LGBT is; thus, they try to understand the basic or factual information. Then, they can narrow down the scope of investigation to a particular area of the topic, such as the LGBT group in Japan. As illustrated in the interview, he said,

> For example, if my students doing LGBTQ issue, understanding section is basically it's very simple, what's the facts. And then next they have to analyse, they have a comparison with Japan and for example, the United States. I even asked my students to do creation stage because it's really hard. If they can, they can do that as well. So basically, a student's research is basically based on the bloom taxonomy. (Noah, personal communication, Nov 4, 2019)

Hence, his rationale of teaching bloom taxonomy helps him to scaffold different levels of thinking abilities to students. Subsequently, the following descriptions offered how Noah's teachers' beliefs and instructional practice for 21st century skills were manifested in the actual classroom practice.

In the first classroom observation, one of the most noticeable 21st century skills development was incorporating technology as a tool to evaluate students' individual presentation. This practice was not indicated in the questionnaire, but it is worth to be mentioned for its novelty. Noah has created different sets of Google forms for students to do formative peer-assessment. He indicated he also used Google form as a quiz to review vocabulary knowledge. During the poster presentation, the group configuration was set up within a group of three or four students. As observed, student took out their mobile phone and log in into the portal site to get access to the Google form link Noah has uploaded. On the form, students write their peer name (the presenter) and evaluate based on criteria before they click 'submit'. The example of criteria includes the poster, speech, and graph. Noah indicated the presenter will receive feedback from their peers and him but not immediately after the presentation. This is because Noah will send out all of the feedback to the presenter once he finishes grading and once one research cycle is over. The grading takes about two weeks. As such, there was transparency of the learning objective and assessment criteria for the students shown in his instructional practices. At the same time, students were made aware of their progress and responsibility for their own learning process through monitoring their classmates, as Noah expressed. The flow of evaluation can be illustrated when he said, "…the feedback goes the student… I also have my own evaluation. So, students evaluation/ peer evaluation, and then my evaluation goes to students." (Noah, personal communication, Nov 4, 2019)

Aside, in relation to collaboration skills, Noah has his own seating arrangement system. One of his strategies to improve collaboration can be seen in his seating arrangement practice. He uses a Google spreadsheet to generate random number of seats arrangement. At the beginning of every class, students walk into the classroom and look at the smartboard to check their seat-of-the-day. The spreadsheet showed a list of number with students' name, and students calculated the number of desks to find their seats. Since the number was randomly generated, students were

able to work with different classmate in each lesson. His rationales of switching seats were as follow,

> I'd like students change [partner] over time, because when they have, this is my personal teaching experience. But if students change their partner constantly. They feel really refreshed. But that's only for textbook [lesson] though, for their research, they will stay with the same member for four weeks in terms, they have the same topic, because they have the same topic. I divided the whole class into four or five groups, and then they have similar topic. (Noah, personal communication, Nov 4, 2019)

Changing of seats, as indicated by Noah, enables students to feel refreshed during textbook-based lesson, whereas students remained in the same group during research project to better contextualize the input.

In the second classroom observation, one of the interesting practices observed was the used of online survey to prompt discussion. This activity has embedded the development of 21st century skills, especially critical thinking, collaboration, communication, local connections, and using technology as a tool for learning. In this activity, he created an online survey, and students were asked to log in into the portal site to complete the survey. Students took about 3 minutes to answer the survey, and Noah showed them the result on the smart board. The survey questions consisted of closed-ended questions and were considered as the general opinion (or knowledge exposure) related to the topic of society and family. Once students completed the survey, Noah had a whole class discussion with the students on the results. Subsequently, he focused on one or two questions in the survey (the result was shown in pie-chart with percentages) and he asked students to discuss and share opinion of their reasons for answer selection as well as elaboration. During the post-interview, Noah shared that this was the first time he used a survey to prompt or expand discussion, but his rationales were to build connection of the past and present learning and to assess discussion technique. His rationales were illustrated as below:

> We did how to describe graphs [in poster presentation]. I taught strategy of describing graphs, and then I wanted to incorporate this part in the future research of future class… which is good…[then] I thought, we can have this opportunity to check students' progress in discussion, a little bit more larger scale discussion, open-ended. Then, I was checking if they're using the language they learned recently. It seems it's going off. I felt that so I have to

> train them more or one more time. We learned this ORE in Spring. ORE stands for Opinion, Reason, Example, and then QERF Q-question, Echo, reaction, a follow up question. (Noah, personal communication, Nov 9, 2019)

In terms of critical thinking skills and local connections skills, he wants students to be able learn about the issues happened in the local context and community; thus, he was connecting the issue of family in German (from textbook) to the birth decline in Japan. This idea can be demonstrated as he said,

> I thought that because students are from education major. And then this child population decline is very serious problem in Japan, and it has to do with their future life. I want them to think very seriously… (Noah, personal communication, Nov 9, 2019)

In the third classroom observation, the main focus was to review and practice grammar points (the types of conditionals in English). The class started with a vocabulary quiz, in which students complete a quiz on a Google form that Noah has created. The task was seen as a formative self-assessment. Subsequently, there was one student who was absent in the previous class, so she had to do her presentation to the whole class. As observed, all students evaluated her presentation using the Google assessment scale. Next, Noah moved on to textbook exercises. He asked students to do the exercises in pairs, and he checked their answers through a whole class elicit. An interesting point observed was he asked students to choose another student to answer the question. This scenario demonstrated that he was trying to share his power or authority in class with the students. When asked about his rationale on this action of asking students to choose another student to answer, he said the purpose was to foster learner autonomy and engagement in class. However, he was not sure about whether students like the way he did or not. He explained that,

> I have no idea about their comfortability. I don't think they're comfortable with it. I want them to be uncomfortable because I want to have on-and-off in class. If you're having fun, [you] have fun. when you are serious, you are serious. When they answer some questions, they should pay attention to what the person before said. Otherwise, the person cannot keep up with that class pace. and I want them to be very cautious with what's going on in the class. (Noah, personal communication, Nov 12, 2019)

He emphasized that he wants to balance both strictness and fun in class to assure students are on task. In situation which students did not know how to answer the questions, he said that he will surely offer help to the student or ask other students to help out. For grammar teaching, he used a PPP (present, practice, and produce) approach or deductive way of teaching. He said that deductive way of teaching was rather easy and less time consuming for him to teach grammar. As observed, he used both Japanese and English to teach or explain the grammar. During the post-observation interview, he shared that students often hold a pre-conception that conditional grammar is difficult to grasp. However, he tried to simplify them as much as possible and included repetition of guided-input to help students master the concept. For instance, "if I was the president of the university, I would ….". He modelled the answers for the students, and students created their own sentences with their peers. In conclusion, the instructional practices he highlighted in this class were mostly collaboration, communication, and using technology as a tool for learning.

Summary. Noah's stated teacher beliefs and practices are strongly related to his knowledge towards goals, subject matter and curriculum. This aspect was related to the domains of pedagogical knowledge (Borg, 2003). Based on the analysis of the findings, there is a contradiction within his beliefs as well as his stated beliefs and classroom practices. Within his beliefs, he claimed that he wants to foster learner autonomy through raising awareness of student ownership in learning, but the analysis from the interview revealed a certain degree of rule-driven and top-down teaching philosophy. Not to mention, he has repeatedly talked about his practices as dictated by the goals and objectives that are associated to the syllabus as well as students should be aware of their responsibility by following class rules. In the same way, even though he mentioned his role in teaching is acting as a facilitator, some of his classroom practices yield moments of the role of a controller and as a teacher-expert. This finding implies that his classroom practice showed certain degree of unequal power relations between students and teachers in the classroom. That is to say, the mismatched of beliefs within his beliefs system and

practice could be manipulated by both internal and external factors that worth to explored in the further research.

On the contrary, though Noah did not think of 21st century skills as 21st century skills during the initial interview, his instructional practices showed development of students' 21st century skills in the three-classroom observations. However, there were only little connection between his actual usage of instructional practices and his stated practices highlighted in the survey response. In the survey response, the rating showed a high usage in global connections, critical thinking, communication, but the actual classroom field notes only recorded high usage in communication and collaboration. Despite such inconsistent outcome, the relationship between Noah's beliefs and practices seemed to outline the third relationship mentioned in the literature. Some of his beliefs and practices may not be related or at least they are difficult to comprehend due to its complexity or contradiction within his belief system. Nevertheless, one of the most valuable 21st century skills practices seen in the class was adoption of research project (project-based learning). His approach of using research project provided rooms for development of all 21st century skills. His adoption of four-week research cycle showed teachers who intended to build 21st century skills should adopt a longer research cycle, such as 4 weeks (8 lessons) to encourage students to deepen their understanding. The overall 21st century skills instructional practices in the classroom observations are shown in Table 30 below.

Cross-Case Analysis

Cross-case analysis is performed to examine the similarities and differences in between the previous four case studies. For that, this section illustrates a synthesis of four teachers' beliefs and practices in developing 21st century skills. To better understand the foreground of themes and interpretation of the teachers, Table 31 was generated to present the findings from the previous section. Subsequently, cross-case analysis themes were presented, and they are beliefs about teaching and learning, beliefs towards teaching 21st century skills, instructional practices that lead to development of students' 21st century skills and followed by a summary.

Table 30

The Observed 21st Century Skills Instructional Practices in Noah's Classes

Lesson Agenda	Interactions	Highlight of the 21st Century Instructional Practices**
CO1*		
Individual research poster presentation (peer assessment)	In a group of 3 or 4 → whole class grading on one student	Critical thinking – b, c, d Collaboration – a, f Communication – a, b, c Creativity and innovation – e Self-directional – b, d, f, g Global connections – a Technology – e
Textbook – vocabulary and speaking	Pairs → whole class elicit	Collaboration – a
Review vocabulary - Quizlet live	Review individually → whole class competition but individual task	Technology – a
Textbook activity Assigned HW – reflect on the presentation	Group of 5 → whole class → group of 3	Collaboration – a Communication – d
CO2*		
Textbook activity (do the exercises and check the answers together – 3 exercises)	Pairs → whole class elicit → individual/ pair → whole class elicit → individual/ pairs → whole class elicit	Collaboration – a Communication – d
Survey + Discussion Assigned HW	Individual → pairs → whole class → pairs → whole class	Critical thinking – c, f Collaboration – a Communication – d Self-directional – a Local connections – a
CO3*		
Vocabulary quiz	Individual	Technology – h
Research poster presentation (peer assessment)	One student presented her research to whole class	Collaboration – f Communication – c Self-directional – e
Textbook activity 1	Pairs → whole class check → pairs → whole class check	Collaboration – a
Textbook activity 2 – grammar focused	Teacher led → pairs → whole class elicit → pairs → whole class elicit → pairs	Collaboration – a
Share summary (HW) Assigned HW	Pairs	Collaboration – a Critical thinking – c

Note.
* 'CO' stands for classroom observation
** See Appendix K for the whole list of practices

Table 31

Key Findings from the Four Case Studies

	Participants (Pseudonym)			
Themes	T1 (Chloe)	T2 (Henry)	T3 (Lina)	T4 (Noah)
Type of class	English communication	ESP	EAP	English communication
Core teaching beliefs	Focus on the needs of the learners and affective behaviours; provide a variety of learning opportunities	Focus learner autonomy as a class unit; view classroom as a learning community where students help one another	Focus on building students' independent study habits	Focus on learner autonomy by emphasis on students' responsibility; value of homework and attendance
Goals in teaching English	To develop communicative competence and international exposure	To develop competent language user	To develop both linguistic and communicative competence as well as cross-cultural understanding	To help students to improve their English ability and to develop learner autonomy
Influence on beliefs and practices	Schooling, teacher education, educational context, classroom practices	Schooling, teacher education, educational context, classroom practices	Schooling, teacher education, educational context, classroom practices	Schooling, teacher education, educational context
Observed teaching roles	Organizer	Organizer; resource; counsellor	Organizer; Prompter;	Organizer
Beliefs on teaching of 21st century skills	To expand students' knowledge via integrating technology; skills related to digital technology	Acting as desirable learning outcome; intended to incorporate but did not focus intentionally	Important skills; students internalising learning; goal-setting; self-reflecting	Did not appeared as his major concerns in teaching but developed some of the skills stated in the survey
Top 3 21st century skills highlighted in survey response	Using technology as a tool for learning; local connections; communication	4Cs, self-direction, and global connections (all equally high)	Critical thinking, collaboration, self-direction	Global connections, critical thinking, communication
Visible emphasis of 21st century skills in the actual classroom observations	4Cs, and self-direction	4Cs, self-direction	Critical thinking, collaboration, communication, self-direction	Collaboration, communication Using technology as a tool for learning

Beliefs about teaching and learning. Having analysed teachers' core teaching beliefs along with other themes, the basic assumption of beliefs towards teaching and learning could be established. The findings can be construed that all teachers' beliefs were centred on student-oriented teaching or student-centred learning; however, how teachers prioritized student-oriented instruction varied in classroom practices. Most teachers acknowledge learners as the heart of their instruction, but not all of them offer a balanced power of student-teacher relationship and responsibility for learning in their classroom. As endorsed by Weimer (2002), one of the key practices to achieve a student-centred learning is to build a shared responsibility for learning in both students and teachers. Shared pedagogical decisions are important to foster self-directed life-long learners and to build student engagement (Weimer, 2002). When students gain some control over their learning, such as type of tasks, deadline, mode of learning, help to develop student responsibility for learning. When teachers incorporated student feedback to guide their lesson content, learning is more student-centred. When teacher role was to tell and transmit the knowledge, and responsible for student learning, learning is more teacher-centred as thus leads to passive learning.

All the four teachers want to help students to improve not only the language skills but also the aspect of active learning. The lesson organization observed in the four teachers showed a variety of structured, blended and unstructured learning activities. For instance, Chloe tended to implement short structured activities or pre-determined guided input or questions in her lesson. Sometimes she also allowed students to create their own conversation questions to discuss based on the general topic she offered or to choose topic of interest they want to study. In this case, most of his learning activities were longer and unstructured due to the great flexibility in his course and the nature of project-based learning approach. In contrast with other three classes, Henry' class is the only class that does not include a required course book. For this reason, his teaching was less bounded. Broadly speaking, the learning cycle in the class begins with choosing a topic, brainstorm, form a team, plan, prepare, discuss, present the topic and reflect.

In the case of Lina and Noah, they shared some degree of similarities in the structured, unstructured, and blended learning activities as their lessons are separated into textbook-focused and writing focused (for Lina) or research-focused (for Noah). During textbook-focused lesson, Lina implemented structured activities in which she offered time for students to share and discuss their answers and followed up with whole class elicit as well as expanding questions to build a deeper connection between learning and student context. For Noah, his structured activity in textbook focused lesson involved students doing the textbook activity during class time in pairs or individually and followed up with whole class elicit and checking or expanding questions. Both of them used blended material, such as TED-talk video or Youtube news video that students watch out-of-class time and discuss the learning in class as per indicated during the interview. For more unstructured activity in the non-textbook lesson, both of them provided prompts or topics for students to choose and to create their own learning product. All in all, most teachers offered a certain degree or a variety of avenues for learners to explore different routes in learning that help to achieve student-centred learning. As a result, to promote 21st century skills among students, classroom practices should echo active learning that assimilate student-centred learning through generative lesson organization.

Beliefs towards teaching 21st century skills. As Table 31 shows, all teachers showed a certain level of emphasis on the importance of teaching the 21st century skills, especially highlighting the aspects of students. However, as analysed from the interviews, the degree of in-depth insights into the concept or instructional practices of 21st century teaching and learning compared with the concepts emerged in the literature were somewhat superficial. Literature such Kereluik et al. (2013) indicated the purpose of teaching 21st century skills take the advantage of technology and encourage students to go beyond the knowledge they get to evaluate the value of learned knowledge in responding to their personal needs. A series of examples may show how similar and dissimilar teachers' beliefs are to such interpretation. For instance, Chloe shared her perception of teaching 21st century skills as serving the purpose of expanding students'

knowledge as she believed in the affordance of digital technology. For Henry, he indicated teaching 21st century skills as a desired education goal as well as his responsibility to develop the skills in students, but later he commented his implementation of teaching 21st skills was associated to his beliefs towards building learner autonomy than the goal of teaching 21st century skills itself. Similarly, Noah claimed he did not focus on teaching 21st century skills. In contrast to the rest, only Lina showed a better explanation on the idea of 21st century skills as she was able to describe her thoughts on the concept. She delineated her beliefs towards teaching of 21st century skills were students being able to internalize (or personalize) learning, goal-setting and reflecting, and teaching 21st century skills to students were part of her teaching concerns. On the whole, much clarification on the concept and purpose of teaching 21st century skills are still required.

Instructional practices that lead to development of students' 21st century skills. Upon analysis, teachers across four cases seemed to value great importance on students reflecting on their learning. Their support of self-regulated learning triggered the development of self-direction skills, critical thinking skills and active learning. The findings show all teachers implemented different ways to encourage self-reflection and self-assessment. For instance, Chloe used self-reflection in class during the quick write activity for students to reflect on their speaking skills in the class as well as to document their writing fluency (5 mins). Henry used self-reflection and goal settings at the beginning and end of the lesson to help students to review, build upon and connect their prior and future learning goals (4 mins). Lina assigned weekly learning journal as homework for students to record their learning process and evaluate their personal goals and strategies. Noah used self-reflection as part of student research note-taking entry and post-presentation reflection. Ultimately, these strategies helped students to monitor, share and regulate their learning process in so to develop self-direction skills.

In addition, some of the teachers focused on questioning as the strategy to develop student critical thinking skills and student involvement. This practice is highlighted in literature

in which Trilling & Fadel (2009) explicate that questioning or inquiry are important learning processes to drive exploration and uncover new knowledge. For example, Chloe prompted students with higher-order thinking questions (or referential questions) and wh-questions to seek student ability to reason their opinions in class. She also asked students to develop sentences or questions during the task, so that their partner can answer or react to the questions which had no correct answers. Most teachers (Henry, Lina and Noah) asked students to share and talk about their learning. Students in their class had to summarize and share what they have learned or read with their partner in a group or in pair to co-construct the meaning and content of learning. In doing so, students had to understand and analyze their own ideas and partners' point of view so that they can interact and react to other points of view. In addition, Lina's instructional practice to develop students' critical thinking skills weighed on asking students to clarify the meaning of their partner's speech and intention in order to make connections among ideas (which falls under 'analyze' in bloom taxonomy). For Noah, he has taught bloom taxonomy to students at the beginning of the year, and students applied bloom taxonomy to plan their research project.

In terms of building collaboration skills, all teachers were able to ask students to work in pairs or in a group to complete tasks and offered feedback to one another. However, among the four teachers, only two of them were able to achieve other instructional practices (b, c, d, e) in this skill. For instance, Chloe was able to use the contributions of student brainstorm questions to prompt fluency speaking questions. In Henry's class, students in the small group incorporated their feedback from each other to create a team product. Other than that, both Chloe and Noah have a more oriented grouping technique for students to collaborate. They used cards or technology to randomly assign grouping or student seating. Hence, students in their class seemed to hold fewer choices to choose who to work with as seating was randomly assigned. On the other side, Lina was more flexible in terms of seating arrangement, she did not assign seats and she just paired up the students who were sitting close to each other to work on a task. Likewise, Henry's students have a complete freedom to choose where to sit and who to work with.

However, the similarities and differences among four of them could be attributed to the type of class they are teaching. Since Chloe and Noah shared the same type of course (general English communication course), they shared more or less the same style, whereas Lina and Henry's classes were the departmental English course and assigning seats or not did not emerge as part of their teaching concern. Nevertheless, the fact that seats were randomly assigned or not did not resemble any high or low usage of instructional practices to develop collaboration skills.

Subsequently, there were a variety means of communication in the observed lessons. All teachers required students to share the learning to their classmates. The modes of communication were written and oral note sharing, written products, presentation posters, pair-work, group work or whole class discussion. Since collaboration is highly involved in all classes, students were constantly engaging with the content and sharing their ideas and thoughts to formulate meaningful output in class. On the other hand, in regard to creativity and innovation skills, all teachers were able to highlight instructional practice (e) in their class. Among four teachers, only Chloe asked students to do brainstorming in her classroom activity while solving a particular task. She implemented a game-based learning approach in brainstorming whereby students compete in groups to create new adjectives. Her belief of students being able to think out of the box encouraged her to adopt activities that seek student creativity. Noah's and Henry's approaches in project-based learning anchored students to generate own ideas to solve the problems they faced in preparation. The observed stages in the project cycle explicated similar phases as demonstrated in past studies, Trilling & Fadel (2009) claimed learning projects should involve the phases of define, plan, do, and review. Last but not least, based on the survey, there were not many explicit practices that Lina and Noah use to encourage the development of creativity and innovation skills.

The development of global and local connections skills were difficult to summarize as they were not highly promoted in the classroom practice as indicated in the overall findings. As observed, students were asked to watch TED-talk or videos (in Lina and Noah class) that help

them to understand opinions and ideas from other perspectives, but they were not asked to form deep connection on the topic. Some teachers also helped students to understand the issues happened in other countries, but they did not ask students to examine the significance of the issues. For example, students in Lina's class has a news report sharing activity. She encouraged students to read news (local or world) and synthesized news articles, but the activity was not part of her intention to discuss what every student has found. The activity, as indicated in the interview, served as a trigger to expand student reading habits and exposure to different writing genre that helps to build their academic writing skills; thus, the intention of building global and local connections skills were just partially developed in the activity. On the other hand, Noah focused on research project may help to build these skills indirectly as students had to narrow their topic of research into a particular context. After all, teachers seemed to be able to only provoke learning interest (building awareness) on global and local issues to an extent, but their instructional practices demonstrated did not have the intention to seek students to integrate the learning into their daily lives.

As for developing students' skills in using technology as a tool for learning, the methods and purposes of using technology varied in some of the teachers. For instance, Lina use technology (Google Classroom) to manage student learning progress. This method allowed students to receive emails or alerts to class announcement and checked their homework list. Sometimes she also used a Google form to do quick quiz as per indicated in the interview. In Noah's class, students used Google from to evaluate their peers during the individual research project presentation; hence, technology was used as an assisted learning tool for peer-evaluation and to obtain personalized learning assessment and feedback. In addition, Noah used Quizlet for vocabulary review and quizzes. The purpose of using Quizlet helped Noah to review the vocabulary he has taught and also allowed self-assessment. Students can review the vocabulary on their own pace. He also did Quizlet Live where students get to review the vocabulary while having fun in the class. Similar to Quizlet, Chloe used Kahoot to review vocabulary in class. In

addition, she mentioned she wants to use M-reader in the next semester to allow students and her to monitor the extensive reading task. Lastly, Henry used a specific website to direct students to get the debate information or as a self-instruction. All teachers use technology for a variety of reasons in which shadows substitution, augmentation, modification, and minimal of redefinition.

Summary. By comparing four case studies across different themes, the findings conclude several characteristics where additional attention could be focused on. Overall, interviewed teachers viewed teaching and learning as student-centered that involved active learning and building student ownership in learning through a variety of open-ended or structured activities. Although the notion of teaching and learning is neither of a teacher-centered nor student-centered idea; the importance lies in ability to blend in both spectrums with considerable balance of teacher guidance and students-directed learning. On the other hand, teachers' beliefs towards teaching of 21st century skills were central around developing self-directed lifelong learners, inclusion of collaborative work, and reflective teaching practice. The implementation of project-based learning provides great support to development of students' 21st century skills. The areas of local and global connections and creativity and innovation skills were still in needs for room to implement in the classroom practices. At last, despite showing relevant use of instructional practices to develop 21st century skills among learners, all teachers did not have sufficient or adequate understanding on the broader sense of teaching 21st century skills to students. Therefore, subsequent discussion will be presented in the following sections in relation to the literature.

Discussion

21st century skills educational reforms aim to transform human lives, especially in terms of helping future generations to survive in an increasingly interconnected community and digital society. Despite the growing needs of teaching 21st century skills in the current education, there has been a profound gap of how these lofty 21st century reforms can be effectively taught or developed in the curriculum (Kivunja, 2014). In addition, literature also indicates the role of

teachers' beliefs and practices has a direct influence on the implementation of 21st century skills development (Voogt & Roblin, 2012). The purpose of this study was to examine the reciprocal relationship between EFL teachers' beliefs and their instructional practices in developing 21st century skills among students in the English language learning courses at a private Japanese University. Explanatory sequential (quan □ QUAL) mixed-methods research design was used to illustrate a comprehensive evaluation of the researched inquiry, and the results and findings of the study were obtained through online survey, semi-structured interviews and classroom observations. The discussion in this section is organized based on the research questions and new insights.

The first research question examined the relationship between teachers' beliefs and instructional practices in developing students' 21st century skills among the 33 teachers through a quantitative research design in Phase 1. In general, the quantitative results show the null hypotheses were rejected. The results indicate a statistically significant positive relationship between teachers' beliefs and the frequency use of instructional practices to develop students' 21st century skills. Additionally, teachers' beliefs do significantly predict the use of instructional practices to develop students' 21st century skills. Though caution must be taken in analysing the results due to small sample size, this evidence deduces that the higher the teacher beliefs towards teaching of a 21st century skill, the higher the usage of instructional practices to develop students' 21st century skill. More importantly, this claim raises potential room to study how to improve teacher current levels of beliefs and practices in hopes of enhancing or amplifying implementation of 21st century instruction at the university. With the high emphasis on encouraging students to participate actively in the society and better prepared them for the knowledge-based society, teachers need be more attentive and active in thinking why and how to further develop their instructional practices to foster students for the 21st century (Dede, 2010; Mishra & Kereluik, 2011; Trilling & Fadel, 2009).

On descriptive statistics analysis, results implied the average value of 33 teacher perceived development of 21st skills through their use of instructional practices was close to a moderate extent; the frequency use of instructional practices to develop 21st century skills was also close to one to three times per month on a five-point Likert scale, which indicating inadequate development. These results explicate teachers in the researched university were only partially (i.e., beyond 2.5 on a five-point Likert scale) responding to the demand of teaching 21st century skills to students. Though the result sounds half-heartedly rewarding if compared to a similar research study where indicated a low teacher usage of instructional practices in teaching 21st century skills (Ghamrawi et al., 2017), necessary planning and actions that involved different level of support systems in school should be endorsed to elevate the current result in order to not produce citizens that could not thrive in the turbulent era of multi connected societies (Reimers & Chung, 2019).

In addition to the overall mean values, the strongest means of 21st century skills reported by the 33 teachers were critical thinking, collaboration, and self-direction as these ratings for both beliefs and practices items had score above a three-point out of a five-point Likert scale. This result suggests that teachers were much comfortable or more frequently in asking students to do activities that develop these respective skills. However, contrary to the general education norms that propagate greatly on the 4Cs (critical thinking, communication, collaboration, and creativity) (Care & Griffin, 2015; Partnership for 21st Century Skills, 2011), the current result that shows low encouragement in communication and creativity and innovation was alarming to the educators and societies. Hixson, Ravitz & Whisman (2012) defined communication skills as the ability of the students to being able to demonstrate understanding or well-developed thoughts through a various form of communications, including media, spoken and written. In line with the higher education goals that promote different forms of learning, this domain of skills should be actively applied so that students are well-prepared to present their ideas intellectually throughout the course of studies as well as future employment. In terms of creativity skills, Mishra and

Mehta (2017) also suggests students need to have a good foundation of knowledge on the topic to be able to break and remix interdisciplinary learning as creativity and innovation skills were not taught in empty vessels and they should develop along with sufficient input of guidance. Hence, teachers in the researched university should find ways to develop students' 4Cs skills through building deep disciplinary learning.

On the other hand, the weakest 21st century skills reported by the 33 teachers were local connections and followed by using technology as a tool for learning. Although local connections had a similar reported finding as part of the least developed skill found in other studies (Boe, 2013; Ghamrawi, Ghamrawi & Shal, 2017; Wilcox et al., 2017), this gap should be taken seriously to inform appropriate or immediate decision making in the education units. Low development of local connections among students advocates limited connection between teaching and learning were made on student local contexts or community. That is to say, students are not often ask to understand, apply, analyse, and evaluate their learning in responding to the social issues in the surrounded environment; therefore, causing learning to be disconnected to their local context. As such, teachers should take serious concern on not to ignore the importance of teaching local connections to students. Though there may be other reasons that impinge the development of this skill, such as nature of the course, syllabus goals, feasibility of contents, low development of local connections should be highlighted to inform possible changes in the current classroom practices.

The second research question was addressed by utilizing the survey responses in Phase 1 to further understand how teachers' explanations of their teaching beliefs and instructional practices were related the actual classroom practices towards developing 21st century skills among learners via a case study approach. Ample of research have supported the benefits of studying teachers' beliefs to understand teachers' classroom experience and differences in students' achievement (Breen, et al., 2001; Freeman, 2002, 2000; Five & Buehl, 2012; Phipps & Borg, 2009). Exploring teachers' beliefs also deepen the insights of teachers' psychological

constructs of their behaviours, actions and thinking (Five & Buehl, 2012). Upon multiple semi-structured interviews and classroom observations, the findings indicated teachers' stated beliefs and practices in both survey response and interviews were multifaceted. The thick descriptions of case study in the finding section reported the nature of teachers' beliefs may be consistent and inconsistent or reciprocate with their instructional practices. Some of the specific stated beliefs and practices were enacted and influenced by several factors such as prior learning experience. Hence, this finding echo consistent with the literature in teacher beliefs, indicating the relationship between teachers' beliefs and practices are complex (Borg, 2018; Five & Buehl, 2012).

Additionally, qualitative findings indicated unexpected finding from teachers' usage of instructional practices in relation to their understanding of teaching 21st century skills. Based on the analysis, most teachers do not teach 21st century skills thinking those skills as 21st century skills or thinking they are developing 21st century skills. The demonstrated usage of 21st century instructional practices in class inclined to the nature of the course and teachers' beliefs. For instance, the nature of the course of the four teachers values the development of communication and collaboration skills; therefore, the skills teachers developed in class were reflected as 21st century skills. As such, some of the underlying purposes of teaching 21st century skills were not indicated by the teachers. Henceforth, whether teachers are fully aware of the broader sense of teaching 21st century skills to students or not did not emerge explicitly in the findings.

As literature pointed out, the essence of teaching 21st century skills is to incorporate knowledge into real world experiences (Silva, 2009). This concept conveys the underlying relevancy between curriculum and students' lives, in which how the disciplinary knowledge is interconnected or interconnected or fit into the broader sense of cross-disciplinary knowledge (Mishra & Mehta, 2017; Saavedra & Opfer, 2012). How students use what they have learned and applied to their daily lives and what the values students convey into knowledge and actions through 21st century skills establish the foundation of this 21st-century-educational reform.

Thus, findings suggest there are still great opportunities to implement the concept of 21st century teaching and assessment widely into the curriculum of the current researched university as well as to realign teachers' interpretation of the concept that of to the ones stated in the literature. Similar to the quantitative results, the incorporation of global and local competence as well as technology skills were not present as frequently developed skills in the actual classroom practices. Therefore, appropriate actions should be taken if the researched university intends to develop all of the 21st century skills. Despite the absence of stated description to integrate 21st century skills in the national standardized tests, educators in the higher education should have a firm understanding on how 21st century skills could be applied into the convention academic standards (Kivunja, 2014; Kivunja, 2015).

Furthermore, the findings also indicated that four teachers showed a consistent collective teacher belief towards teaching and learning, which focused on student-centred learning practices. Though teachers prioritized and executed student-centered instructional approaches differently, their use of instructional practices in the actual classroom has valued substantial amount on students' needs and building upon learner autonomy. Teachers' influences of beliefs and practices identified were also consistent with past research (Borg, 2003; Borg, 2018; Pajares, 1992), indicating teachers' beliefs were multifaceted interconnected and the influences were by their prior learning experience as a learner, teacher education, contextual factors, and classroom practices. Having observed and analysed four teachers' instructional practices in relation to their beliefs, project-based learning seemed to be as an effective approach to develop students' 21st century skills, and this finding is in line with past literatures (Atwell, 2014; Motallebzadeh, Ahmadi & Hosseinnia, 2018).

On reviewing the research data, some insights emerged which should be addressed in terms of implementing 21st century skills. These insights include (1) developing 21st century skills beyond the classroom context, (2) understanding of the role of technology in education, (3)

developing 21st century skills in resource-limited learning environments or conditions, and (4) highlighting the necessity of building local connections.

The role of the institution in developing 21st century skills beyond the classroom is important to ensure a sustainable development of 21st century skills among university students. There is a common norm that Japanese students in higher education tend to excel to a great extent in school club activities and circles (Warrington, 2006). The culture of extra-curricular activities in the Japanese context is a way to establish social skills and to learn how to operate in Japanese society through participating in club activities, social events, and group events (Warrington, 2006). Additionally, the widespread use of Self-Access Centers in Japan also served a variety of functions to promote authentic language exposure beyond the classroom (Kongchan & Darasawang, 2015). Similarly, the extensive service-learning or internships also provide opportunities for students to connect with actual practitioners. Hence, club activities, circles, self-access centers, and internships increase opportunities to expand learning of 21st century skills beyond the classroom. Expanding learning of 21st century skills outside of classroom enhances integration of both formal and informal learning with the social communities. By doing so, students are able to practice, to connect and to contextualize the skills and knowledge into real world application and daily events. As a consequence, institution should invest time to ensure the human capital in the university are well aware of this inclusive implementation to better achieve the broader goal of developing well-equipped 21st century learners that consist of transversal skills.

In addition, understanding of the role of technology in education helps teachers better develop students' technological skills. However, technology does not necessarily equal to 21st century skills. Technologies only afford us the opportunity with a "zone of possibility" to leverage learning (Mishra & Kereluik, 2011). Li, Worch, Zhou and Aguiton (2015) suggest that harnessing technology in classroom practices support facilitation of teaching and learning thereby influencing student learning outcomes. Even though using technology as a tool for learning was

not highly encouraged or developed in this study, there is a need to reinforce the purpose of using technology in classroom is to maximise and transform learning, and to support manifestation of other 21st century skills. When teachers want to use technology in class, they should consider whether the purpose of using technology helps to transform learning because teachers can use technology without actually transforming learning. Technology integration practices oftentimes remained at the stage of substitution and augmentation, as described in the SAMR (substitution, augmentation, modification, and redefinition) model (France, 2018). In other words, this scenario highlighted that technology was literally only used for consumption of content and learning material by reducing complexity of tasks or mode of disseminating information (France, 2018). In contrast, the use of technology should really incorporate skills beyond doing lower-level tasks or as means replicating traditional teaching practice (e.g., reading notes online, listening to audio online, recalling vocabulary or facts; guessing games; clicking the answers; Google Form or Quizlet quizzes; managing teaching materials and submitting homework in LMS such as Google Drive) to doing higher-level learning such as creating meaningful tasks and deep learning. What is more is the technological side of 21st century skills should emphasize on developing media, information, technology literary (Partnership for 21st Century Skills, 2009). As examples, teaching students how to assess and evaluate "fake news", online information that is mediated and constructed by the media for various political and economic reasons; teaching students how to access information online to connect to the real-world issues. Therefore, the understanding of how technology tools are used to empower students to actively and critically engage in the technology-rich societies are extremely crucial prior to or during the implementation of 21st century skills.

Also, based on the literature, there is a common understanding that the use of technology to support learning is essential or necessary in building 21st century skills in the schooling environment (Mabaso, 2017; Saavedra & Opfer, 2012; 2013). In spite of the emphasis on 21st century skills development in every single individual for the sake of social mobility and well-

being (Reimers & Chung, 2019), such education reform sets out several challenges. For examples, the issue of developing technology related 21st century skills in resource-limited learning environments, such as rural areas, isolated or with marginalized communities. Inadequate educational facilities and limited access of ICT resources including internet or even electricity in the remote areas pose great challenges to both teachers and learners to develop 21st century skills. In literature, these factors are often known as the first-order (external) and second-order (internal) barriers to technology integration in schooling (Ertmer, 1999, 2005; Kim, Kim, Lee, Spector & DeMeester, 2013). According to Ertmer (1999), first-order barriers included lack of resources (e.g., absence of hardware and software; internet access; funding) and lack of professional development, sufficient time to plan for integration, and institutional support. Second-order barriers, which were more difficult to eliminate, are dealing with intrinsic factors such as teacher personal theories or beliefs about teaching and technology, and their resistance to change in practices. In the similar vein, Mabaso (2017) also identified similar challenges in implementing technology integrated practices in the rural contexts, such as the amount of time spent in planning technology integration and teacher knowledge towards technology integrated practices. Despite such occasions, the challenges in resource-limited learning environments should not obstruct the development of other 21st century skills such as critical thinking, communication, collaboration, and creativity.

On the other hand, there are also issues of how 21st century skills are developed in restrictive societies or less democratic freedom countries such as in North Korea, China, Eritrea Cuba, and Vietnam. For instance, in the context of China, the pervasive internet censorship plays a huge role in monitoring, suppressing, mediating information or media presented to their citizens (Kou, Semaan & Nardi, 2017). Given the fact that when advanced technologies are present and available in China to develop information, media, and technology literacy, how Chinese students from the mainland perceive and understand the world to build global citizenship with strict internet censorship propose fruitful research to be explored.

Last but not least, the development of 21st century skills often portrayed the image of high emphasis on global scale and international issues than on local scale and local issues. Oftentimes, the overdependence on global-scale-issues detached students' ability to address or relate global issues in local communities as well as diminished the issues happened in the surrounded communities. Walker-Andrews (2014) indicated instead of emphasizing international exposures or study aboard, teaching and learning should engage students to grasp global issues at the local level. This approach allows students to invest in not only effective cross-cultural communication, but also perspective-taking to address local examples of global issues (Walker-Andrews, 2014). Thus, teachers should provide opportunities for students to recognize global issues in the local context.

Moreover, a study conducted by Tindowen, Bassig and Cagurangan (2017) that showed highest development of local connections in alternative education learners illustrated student learning on local connections was greatly supported by communal, in particular local community learning centers. Their finding reinforced the importance of teachers teaching content, knowledge and topic that reflect cultural context or local setting. Thus, in order to intensify the development of local connections, teachers are suggested to select appropriate localised instructional materials to help students to improve application of learning into local communities (Tindowen, Bassig & Cagurangan, 2017).

Limitations

The current study scrutinized the reciprocal relationship between EFL teachers' beliefs and their instructional practices in developing 21st century skills among students in the English language learning courses at a private Japanese University. However, the existence of limitations, including methodological and the researcher have impacted the results of the study.

First, in regard to sample size, respondents in this study depend highly on self-selected participation. As Hixson, Ravitz and Whisman (2012) indicated, the nature of the studies that involved voluntary teacher participation tend to contain the risk of self-selection bias, and the

obtained survey responses tend filled by the motivated teachers or teachers who seek professional development. In order to ensure the validity of the sampling size in Phase 1 (i.e., receiving 33 respondents out of 56 targeted participants), the researcher has illustrated the confidence level and accuracy of the results by referring to established sampling size requirements. Despite the fact of small sample size in Phase 1 that could not generalize the findings to a broader interpretation, the findings of this study provided a meaningful result to the educational stakeholders involved in the researched university. Similarly, the methodological approach in this study also helped to address this issue by using a mixed-methods research design. The followed-up qualitative Phase 2 study adopted multiple semi-structured interviews and classroom observations to ensure the research data is rigor and robust to further explained to the quantitative Phase 1 study.

Second, with respect to self-reported data, literature indicated all self-reported data possess potential sources of biases or ambiguity (University of Southern California, 2020). For instance, self-reported data may be biases of selective memory, exaggeration, telescoping, and attribution (University of Southern California, 2020). That is to say, teachers may or may not remember the number of times of instructional practices they use when they answered the survey. The reported responses from the survey may be based on teacher estimation of experience; thus, the responses may be attributed, telescoped, or exaggerated. However, triangulation of research methods was executed to minimize the biasness. As examples, the self-reported data in Phase 1 was followed up in the Phase 2 qualitative study. During the Phase 2 study, the self-reported data of the selected participants were further triangulated through multiple semi-structured interviews and classroom observations. To minimize the bias of Phase 2 data which indicated teacher stated beliefs and instructional practices, classroom observations were conducted to verify and further elaborate the statements and observed practices. To obtain rich data for analysis, each teacher participated in six to seven interviews (duration range 10 to 40 minutes) and three classroom observations in one month. Some of the classroom observations were even conducted on a

weekly interval or consecutive class to ensure the connection between the classroom observations and teachers' planning.

Third, regarding the measure of scales in the online questionnaire, the Likert scales in section two (e.g., 'almost daily', '1-3 times per week', '1-3 times per month') may have caused confusions to some of the teachers about how to answers the questions. Due to this, there two emails received during the data collection period, asking how to select the scale as the classes the teachers have were only once or twice a week. Follow-up clarifications on this matter were addressed during the data collection period.

Fourth, on Phase 2 sampling methods, some of the highest ratings (i.e., the top 3) participants who developed students' 21st century skills to a very great extent were inaccessible due to their absence of interest in joining the Phase 2 study. Based on the stipulated sampling criteria, the participants have to indicate their interest in the Phase 2 study in order to be invited for the Phase 2 research. Yet, despite such occasion (i.e., inaccessible of the top 3 teachers), the current Phase 2 participants were still valid as they appeared as part of the top 10 high scorers among the 33 participants. In this case, these teachers were chosen as they still showed high usage of instructional practices in developing 21st century skills among learners when compared to the rest of the participants.

Educational Implications

As discussed in the previous sections, the current study has contributed clearer insights into the relationship between teachers' beliefs and instructional practices in developing students' 21st century skills, especially in the context of English language education in Japanese university. The current study offers several educational implications for practice in regard to institution, professional development, and teachers and teacher educators.

For Institutions. A deliberate revamp in school support systems, curriculum, teaching and learning, and connections with actual practitioners is required if schools wish to implement extensive 21st century skills education reform. The role of the institution plays an important role

in shaping the degree of inclusive implementation of 21st century skills development in the university. As indicated by Bedir (2019), the framework of curriculum within the institution have a direct influence on school's teaching and learning practices, teacher training, and professional development. Evidence encourages school support systems (i.e., institution's directors, school board members, administrators, policy makers, and faculties) to review the current curriculum to allow integration and implementation of 21st century skills. The research findings indicated teachers' use of instructional practices to support developments of students' 21st century skills were not reflected as the underlying purpose of teaching 21st century skills stated in the literature. The highlighted 21st century skills observed in the classroom practices reflected more as important skills due nature of the course than the idea of teaching 21st century skills. This effect, which revealed teachers' low awareness of teaching 21st century skills thinking the skills as 21st century skills, could be due to the limitation of current curriculum. The absence of explicit statements highlighting teaching of 21st century skills in the course description may limit 21st century skills development and teachers' awareness in teaching 21st century skills. Hence, reviewing the current curriculum and syllabus may help to address these gaps explicitly and to improve the overall results of implementation.

Furthermore, developing 21st century skills among learners beyond the classroom is critical in helping students to transfer theoretical perspectives into real-life situations. As indicated in the findings, only minimal numbers of teachers think they are doing well in building students' 21st century skills through their instructional practices. Considering this implication, curricula developers, institution leaders, and faculties should pay explicit attention in building connections within and beyond the school settings to develop students' 21st century skills. In a sense, respective educational stakeholders should collaborate to ensure students obtain the opportunities to learn and apply 21st century skills through formal curriculum (e.g., academic courses) and outside of academic curriculum (e.g., through extra-curricular activities, self-access centers, internships, and collaboration with local or global corporations and communities).

For Professional Development. Effective and impactful professional development tends to be continuous and rigorous (Garet, Porter, Desimone, Birman & Yoon, 2001). Upon curriculum review, succeeding professional developments should aim to support teacher development at the expanse of improving theoretical and pedagogical knowledge to implement 21st century instructions. A robust professional development that highlights disciplinary knowledge, collaborative participation (e.g., hands-on demonstration, active learning), and coherence with school practice enhances teacher knowledge and skills (Garet et al., 2001). Thus, professional developments should focus on these aspects when designing a teacher training. Based on the research findings, the low development of 21st century skills, such as using technology as a tool for learning, communication, creativity and innovation, and local and global connections could be obstructed by certain factors. Therefore, professional development should collaborate with teachers to examine the barriers and factors that hinder these low developments of 21st century skills so that to offer possible solutions during teacher training. In addition, conducting needs analysis and post-training feedback session are indicated as effective methods to better gauge and evaluate the content, accuracy and precision of the teacher training. If teachers' needs are attended in the professional development, teachers may feel more efficacious to implement the instructional practices in developing students' 21st century skills.

Apart from this, one of the crucial ways to engage teachers in the teaching profession is to provide teachers the opportunities to explore the relationship between their beliefs and practices (Golombek, 1998; Borg, 2018). As Mansour (2009) stated, the changes in the curriculum is seldom manifested as most teachers are active thinkers who consist of preferences in teaching regardless of any education reforms presented to them. The adjustment made on teaching in conjunction with the curriculum reforms tend to be implemented through the course of adaption by the teachers (Mansour, 2009). In other words, teachers tend to tailor their instructional techniques according to their belief system and the context of the learners along with other teaching concerns. When teachers do not understand firmly on the educational reform,

they are less likely to adopt the teaching practice. Therefore, investigating the relationship between teachers' beliefs and practices should be part of the concern when designing any professional development. Having said that, professional development also needs to provide opportunities for teachers to reflect, share and discuss their beliefs and practices with other colleagues so that teachers can be collectively engaged in reflective teaching practice. In doing so, teachers are engaged in a learning community with their colleagues to identify issues and challenges in order to overcome problems that they faced in understanding the relationship between their beliefs and practices. This concept is supported by Borg's (2018) suggestion of studying belief-practice relationship helps professional development initiatives to design appropriate training to promote changes in teachers' classroom practices.

For Teachers and Teacher Educators. The Phase 2 qualitative findings provide implications for teachers to engage in reflective teaching practices, student-centered teaching approach, inquiry learning, and collaborative project-based learning to facilitate the development of students' 21st century skills. Overall, the balance of responding to teachers and students needs in shaping the curriculum content produces effective teaching and learning. Prior to designing lesson plans, teachers need to conduct needs analysis or to find out the needs of the students to cater different learning styles and interests when designing the lessons. With the moderate extent of developing students' 21st century skills, teachers need to readjust the current ways of teaching to incorporate more wide-ranging instructional practices for students to develop 21st century skills. For instance, reflecting own practices, talking to colleagues, observing classes, finding resources online, reading books help teachers to understand ways of integrating and improving 21st century skills development into classroom practices. Not only that, sometimes the course books may be rigid or restrictive to teaching 21st century skills; therefore, this study suggests teachers to find ways to evaluate the content of the course book and to adapt the activities that could manifest the development of 21st century skills.

For teacher educators, findings in this study help teacher educators gain deeper insights on the status of teachers' beliefs and practices in developing 21st century skills. Teacher educators should consider ways to solicit pre-service teachers views on the methods, problems and solutions while developing 21st century skills among learners. In particular, teacher educators should take the opportunities to design curriculum with proper integration of learning and assessment in teachers' educational experience for effective development of 21st century instructions. Hence, pre-service teachers should be given the chance to build their knowledge and skills by learning the existing evidenced-based research to develop students' 21st century skills.

Recommendations

The results of this study provided useful information to aid the current understanding of 21st century implementation in the Japanese tertiary education setting and helped to bridge the gap of actual 21st century instructional practices in the literature. Following recommendations for future research and future practices are deduced.

Recommendation for Future Research. Recommendations for future research are included as follow:

1. Future research should consider a longitudinal research design as the current study only offers a cross-sectional view on the relationship between teachers' beliefs and practices. A longitudinal study would help to deepen the depth and breadth of the teacher constructs beliefs system (Five & Buehl, 2012). The study recommends future research to consider the role of the teacher identity in influencing teachers' beliefs and practices, or how teachers' beliefs change and interact with other contextual factors (i.e., the influence of colleagues, administrators, curriculum and policy).
2. The sample size in the current study has received 33 responses in the quantitative phase. Considering to what extent 21st century skills are developed in the whole

school; future research should enlarge the sample size to a broader targeted populations or courses in the university.

3. Future research should replicate the current study, but utilize a comparative research methodology. For instance, in order to understand whether there are changes in the teachers' beliefs towards teaching of 21st century skills, future research could combine with professional development initiatives to study teachers' beliefs towards 21st century teaching and learning. In a sense, researchers could to examine whether teachers' beliefs develop, evolve, or interact with existing beliefs before, during and after the professional development. In addition, other comparisons can be made on trained and untrained teachers or novice and experienced teachers, or female or male teachers.
4. The study recommends future research to explore other aspects that influence teaching. For instance, replicating the study that considers the role of the institution, curriculum and school practices in influencing the status of the development of students' 21st century skills provide broader insights to the overall implementation of 21st century skills.
5. In future studies, researchers are recommended to conduct video-recordings of the classroom observations. Since the classroom observation data in this research was not video-taped, future research should incorporate video-recording as a tool to produce a thorough systematic analysis of detailed pictures of teacher actions and student actions in hope to outline actual teaching scenarios for reflective teaching purposes.
6. Future research is recommended to improve the limitation of the instrument used in this study. In particular, the matter of appropriate labelling of scale or supplemental clarification should be taken into consideration in future research to help teachers to better select the Likert scale.

Recommendations for Future Practices. The following points offer specific recommendation for future practice:

1. The study suggests educational leaders in the researched university to recognize the needs to re-examine the current curriculum, syllabus and assessments to better support and regulate the implementation of 21st century skills development. The findings in this study have illustrated a potential room for development of students' 21st century skills in the English language learning courses. In particular, they are recommended to consider the explicit integration 21st century knowledge and skills into both academic curriculum and the learning beyond the classroom (e.g., the role of self-access center, extra-curricular activities, internships, community events). There are several evidenced-based researches (see Care & Griffin, 2015; Care, Griffin & McGaw, 2012; Care, Griffin & Wilson, 2018; Care, Kim, Vista & Anderson, 2018; Saavedra & Opfer, 2012) that offer support implementation of 21st century teaching and learning. These literatures have transparent the concept, development, approaches, and assessment for building 21st century skills.
2. The findings of this research offer professional development initiatives to better design training for teachers in the researched university to allow extensive implementation. In order to produce impactful professional development, the study recommends professional developments to offer concrete techniques and content integrated activities for teachers to build up students' 21st century skills. Interdisciplinary learning and transformative learning are important parts of teaching and learning in the 21st century. Thus, professional development initiatives should focus on these two aspects when designing professional developments in so to enhance teacher knowledge and skills to help them align their instructional practices responding to the current education needs.

3. The study also suggests stakeholders in the researched university to consider defining their own 21st century skills framework for the university. By doing so, they can utilize or integrate school mission statements (e.g., be the highest seat of learning for humanistic education) into the 21st century framework.

Conclusion

The current study has found a positive relationship between teachers' beliefs and instructional practices in developing 21st century skills among students in the English language learning courses at a private Japanese University. Despite showing a moderate extent of teachers perceived in development of 21st century skills and their frequency use of 21st century instructional practices, boundless arena still awaits not only teachers but also the whole-school education support systems (e.g., administrators, policymakers, curriculum designers, and faculty leaders) to carefully review the current curricula in hope support students learning the 21st century skills in order to achieve a sustainable implementation of 21st century teaching and learning.

As highlighted in the literature and the findings of this study, the implementation of 21st century educational reform in the current education system are essential to bridge student capability as well as citizens to thrive in the knowledge-based societies. Though teaching and learning have transformed over the past centuries, especially in the 21st century where technology has created borderless communities and facing even more striking global issues, many schools, policies, program of studies, education units have yet to catch up the pace with extensive development that have accumulated to understand the meaning of teaching and learning in the 21st century. There are already many resources such as reports of 21st century educational reforms from several nations (Reimers & Chung, 2019) and past literatures that showcased theories and practices with supported research evidence. Thus, the decisions-making are left to education stakeholders to determine how to utilize the available resources to execute practice widely in the system as well as to continually expand the depth of implementation. The

challenges and obstacles in pursuing new directions are indeed uneasy, particularly having the well-established practices and disciplinary and institution limitations; however, the investments on maximising student learning and social capital for another decade to come are legitimately worthwhile.

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Appendix A: Letter Requesting Permission from Faculty's Deans to Survey Teachers

Letter Requesting Permission to Survey English Teachers from Different Faculties at Soka University of Japan

Dear Dean/Director of _____,

Faculty of Economic, Dr. _____ (_____@soka.ac.jp);
Faculty of Business Administration, Dr. _____ (_____@soka.ac.jp);
Faculty of Law, Dr. _____ (_____@soka.ac.jp);
Faculty of Letters, Dr. _____ (_____@soka.ac.jp);
Faculty of Education, Dr. _____(_____@soka.ac.jp);
Faculty of Science and Engineering, Dr. _____ (_____@soka.ac.jp);
Faculty of Nursing, Dr. _____ (_____@soka.ac.jp);
Faculty of International Liberal Arts (FILA), Dr. _____ (____@soka.ac.jp);
World Language Center (WLC); Dr. _____ (_____@soka.ac.jp),

My name is Ei Leen, Yap and I am a fourth-semester graduate student of ILE: TESOL Program at Soka University. To fulfil the degree requirements for my Master's, I need to conduct a study as part of my dissertation. I am writing to seek your permission in inviting English teachers from your faculty to participate in this study: EFL Teachers' Beliefs and Instructional Practices for 21st Century Skills.

The purpose of this research study is to examine the extent of the reciprocal relationship between EFL teachers' beliefs and their instructional practices in developing 21st century skills among students. In addition, the study intends to engage teachers to better articulate and reflect the nature of their English language beliefs and their justifications for the executed instructional practices that support 21st century skills in literacy instruction. Data will be collected through two phases during 2019 Fall Semester (Phase 1: survey; Phase 2: interviews and classroom observations). A survey will be sent to all English language teachers (part-timer and full-timer) via email in the first stage of the study. The survey should take approximately 25 minutes to complete. The survey is anonymous, and the results are confidential. Subsequently, Phase 2 study involves four to ten participants, who indicated their interests in Phase 2, will go through interviews and classroom observations.

Participants who are invited to participate in this study will receive a detailed invitation email that enclosed a consent form that outlines the objectives of the study, procedure, indicated risks and benefits, statement of confidentiality, participants' rights, survey link and other information necessary for respondents to make an informed decision regarding his/her participation in this research study. All participation is voluntary and there will be no inducements or financial obligations associated with this study.

I would greatly appreciate your support in allowing me to survey teachers in your faculty. I look forward to hearing from you in regard to this survey on teacher and would welcome any thoughts you may have about this study.

Thank you very much.
Sincerely,
Ei Leen, Yap
2018 Spring semester cohort (ILE: TESOL Program)
e18m3207@soka-u.jp
Advisor: Dr. Richmond Stroupe, email: richmond@soka.ac.jp (Tel. +81-42-698-1995)

Subject: Invitation to Participate in a Research

Dear faculty member,

My name is Ei Leen, Yap and I am a fourth-semester graduate student of ILE: TESOL Program at Soka University. To fulfil the degree requirements for my Master's, I need to conduct a study as part of my dissertation. I am writing to you today to invite you to participate in a study entitled "EFL Teachers' Beliefs and Instructional Practices For 21st Century Skills". Taking part in this research is entirely voluntary, and there will be no inducements or financial obligations associated with this study.

The purpose of this study is to examine the extent of the reciprocal relationship between EFL teachers' beliefs and their instructional practices in developing 21st century skills among students in the English language learning courses. The study intends to engage teachers to better articulate and reflects the nature of their teaching beliefs and their justifications for the executed instructional practices that support the development of 21st century skills in students.

If you choose to take part in Phase 1 of this study, you will respond to a survey in an online Google form. The survey should take approximately 20-25 minutes to complete. The survey is anonymous, and the results are strictly confidential that will not affect the status of your employment.

The informed consent for Phase 1 study is shown on the first page of the online survey. Your participation is truly valuable to this research because the data collected from this survey will serve to increase the understanding of how teachers of English language perceive and practice teaching of 21st century skills at Soka University.

To participate, please click on the following link:

The closing date for this survey is on Tue*SD*ay, September 24, 2019.

I greatly appreciate all of your kind efforts and contribution to this study. If you have any questions about this survey, or difficulty in accessing or completing the survey, please contact me at e18m3207@soka-u.jp.

Thank you.

Sincerely,
Eileen Yap
2018 Spring semester cohort (ILE: TESOL Program)

Appendix B: Online Questionnaire

For this study: A ***belief*** is a proposition which may be consciously or unconsciously held, is evaluative in that it is accepted as true by the individual and is therefore imbued with emotive commitment; further, it serves as a guide to thought and behaviour. (Borg, 2001)

SECTION ONE: BACKGROUND INFORMATION

Kindly note that some questions can have more than one answer if it is a checkbox.

1. You are a teacher of the:

[ ] Faculty of Economics
[ ] Faculty of Business Administration
[ ] Faculty of Law
[ ] Faculty of Letters
[ ] Faculty of Education
[ ] Faculty of Science and Engineering
[ ] Faculty of Nursing
[ ] Faculty of International Liberal Arts (FILA)
[ ] School of General Education

2. Choose a TARGET CLASS* that you wish to focus to answer the rest of this survey and mark the type of courses of this class.

*TARGET CLASS means a particular class that you teach and wish to describe your related teaching practices based on this class)

[ ] General English courses (e.g., English 1/2/3/4; TOIEC/ TOEFL Test Preparation)
[ ] Departmental English courses (e.g., General English Communication; English for Academic Purposes; English for Specific Purposes)
[ ] Others, please specify _____.

3. Based on your beliefs, do you agree with the goals of teaching English which include … (You may indicate more than one answer)

[ ] Develop knowledge of the language skills (in reading, speaking, writing, listening, and grammar)
[ ] Develop cross-cultural communication competences
[ ] Foster a sense of social responsibility in students
[ ] Develop competent language user
[ ] Other, please specify _____.

4. Based on your beliefs, what are the most important responsibilities as an English teacher? (You may indicate more than one answer)

[ ] Maximize learning opportunities
[ ] Facilitate negotiated interaction
[ ] Promote learner autonomy
[ ] Foster language awareness (tolerant of learner errors)
[ ] Activate self-discovery (utilize learning and communication strategies)
[ ] Contextualize linguistic input
[ ] Integrate language skills

[ ] Ensure social relevance
[ ] Raise cultural consciousness (in goal, purpose of teaching / learning)
[ ] Engage learners with different strategies and ways to learn and use the language
[ ] Other, please specify _____.

5. Most teachers take on a variety of roles within the classroom, which roles best describe your roles in the classroom? (You may indicate more than one answer)

[ ] Controller
[ ] Assessor
[ ] Organizer
[ ] Prompter
[ ] Participant
[ ] Resource
[ ] Tutor
[ ] Observer
[ ] Other, please specify _____.

SECTION TWO: TEACHER'S BELIEFS AND PRACTICES RELATED TO 21st CENTURY SKILLS IN TEACHING AND LEARNING

Adapted from 21st Century Teaching and Learning Survey (Hixson, 2012; Ravitz, 2014).

Instructions

The rest of this survey asks about your teaching practices that might support students' learning of the following 21st century skills: -

- Critical Thinking
- Collaboration
- Communication
- Creativity & Innovation
- Self-Direction
- Making Global Connections
- Making Local Connections
- Using Technology as a Tool for Learning

Each sub-section provides (1) a definition of the skill, (2) a list of skills-related practices you may have used, and (3) questions about perceptions toward the teaching of a skill.

There are no correct or incorrect answers and all responses will be kept confidential.

CRITICAL THINKING SKILLS refer to 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

1. Here are some examples of practices that may help students learn CRITICAL THINKING SKILLS.

In your teaching of your TARGET CLASS, how often have you asked students to do the following	Almost never	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
a. Compare information from different sources before completing a task or assignment?	O	O	O	O	O
b. Draw their own conclusions based on analysis of numbers, facts, or relevant information?	O	O	O	O	O
c. Summarize or create their own interpretation of what they have read or been taught?	O	O	O	O	O
d. Analyze competing arguments, perspectives or solutions to a problem?	O	O	O	O	O
e. Develop a persuasive argument based on supporting evidence or reasoning?	O	O	O	O	O
f. Try to solve complex problems or answer questions that have no single correct solution or answer?	O	O	O	O	O

2. To what extent do you agree with these statements about your TARGET CLASS?	Not really	To a minor extent	To a moderate extent	To a great extent	To a very great extent
a. I have tried to develop students' critical thinking skills	O	O	O	O	O
b. Most students have learned critical thinking skills while in my class	O	O	O	O	O
c. I have been able to effectively assess students' critical thinking skills	O	O	O	O	O

COLLABORATION SKILLS refer to 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.

1. Here are some examples of practices that may help students learn COLLABORATION SKILLS.

In your teaching of your TARGET CLASS, how often have you asked students to do the following	Almost never	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
a. Work in pairs or small groups to complete a task together?	O	O	O	O	O
b. Work with other students to set goals and create a plan for their team?	O	O	O	O	O
c. Create joint products using contributions from each student?	O	O	O	O	O
d. Present their group work to the class, teacher or others?	O	O	O	O	O
e. Work as a team to incorporate feedback on group tasks or products?	O	O	O	O	O
f. Give feedback to peers or assess other students' work	O	O	O	O	O

2. To what extent do you agree with these statements about your TARGET CLASS?	Not really	To a minor extent	To a moderate extent	To a great extent	To a very great extent
a. I have tried to develop students' collaboration skills	O	O	O	O	O
b. Most students have learned collaboration skills while in my class	O	O	O	O	O
c. I have been able to effectively assess students' collaboration skills	O	O	O	O	O

COMMUNICATION SKILLS refer to 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.

1. Here are some examples of practices that may help students learn COMMUNICATION SKILLS.

In your TARGET CLASS, how often have you asked students to do the following	Almost never	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
a. Structure data for use in written products or oral presentations (e.g., creating charts, tables or graphs)?	O	O	O	O	O
b. Convey their ideas using media other than a written paper (e.g., posters, video, blogs, etc.)	O	O	O	O	O
c. Prepare and deliver an oral presentation to the teacher or others?	O	O	O	O	O
d. Answer questions in front of an audience?	O	O	O	O	O
e. Decide how they will present their work or demonstrate their learning?	O	O	O	O	O

2. To what extent do you agree with these statements about your TARGET CLASS?	Not really	To a minor extent	To a moderate extent	To a great extent	To a very great extent
a. I have tried to develop students' communication skills	O	O	O	O	O
b. Most students have learned communication skills while in my class	O	O	O	O	O
c. I have been able to effectively assess students' communication skills	O	O	O	O	O

CREATIVITY AND INNOVATION SKILLS refer to 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.

1. Here are some examples of practices that may help students learn CREATIVITY AND INNOVATION SKILLS.

In your teaching of your TARGET CLASS, how often have you asked students to do the following	Almost never	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
a. Use idea creation techniques such as brainstorming or concept mapping?	O	O	O	O	O
b. Generate their own ideas about how to confront a problem or question?	O	O	O	O	O
c. Test out different ideas and work to improve them?	O	O	O	O	O
d. Invent a solution to a complex, open-ended question or problem?	O	O	O	O	O
e. Create an original product or performance to express their ideas?	O	O	O	O	O

2. To what extent do you agree with these statements about your TARGET CLASS?	Not really	To a minor extent	To a moderate extent	To a great extent	To a very great extent
a. I have tried to develop students' creativity and innovation skills	O	O	O	O	O
b. Most students have learned creativity and innovation skills while in my class	O	O	O	O	O
c. I have been able to effectively assess students' creativity and innovation skills	O	O	O	O	O

SELF-DIRECTION SKILLS refer to 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.

1. Here are some examples of practices that may help students learn SELF-DIRECTION SKILLS.

In your teaching of your TARGET CLASS, how often have you asked students to do the following	Almost never	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
a. Take initiative when confronted with a difficult problem or question?	O	O	O	O	O
b. Choose their own topics of learning or questions to pursue?	O	O	O	O	O
c. Plan the steps they will take to accomplish a complex task?	O	O	O	O	O
d. Choose for themselves what examples to study or resources to use?	O	O	O	O	O
e. Monitor their own progress towards completion of a complex task and modify their work accordingly?	O	O	O	O	O
f. Use specific criteria to assess the quality of their work before it is completed?	O	O	O	O	O
g. Use peer, teacher or expert feedback to revise their work?	O	O	O	O	O

2. To what extent do you agree with these statements about your TARGET CLASS?	Not really	To a minor extent	To a moderate extent	To a great extent	To a very great extent
a. I have tried to develop students' self-direction skills	O	O	O	O	O
b. Most students have learned self-direction skills while in my class	O	O	O	O	O
c. I have been able to effectively assess students' self-direction skills	O	O	O	O	O

GLOBAL CONNECTIONS refers to students being able to understand global, geo-political issues including awareness of geography, culture, language, history, and literature from other countries.

1. Here are some examples of practices that may help students learn to make GLOBAL CONNECTIONS.

In your teaching of your TARGET CLASS, how often have you asked students to do the following	Almost never	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
a. Study information about other countries or cultures?	O	O	O	O	O
b. Use information or ideas that come from people in other countries or cultures?	O	O	O	O	O
c. Discuss issues related to global interdependency (for example, global environment trends, global market economy)?	O	O	O	O	O
d. Understand the life experiences of people in cultures besides their own?	O	O	O	O	O
e. Study the geography of distant countries?	O	O	O	O	O
f. Reflect on how their own experiences and local issues are connected to global issues?	O	O	O	O	O

2. To what extent do you agree with these statements about your TARGET CLASS?	Not really	To a minor extent	To a moderate extent	To a great extent	To a very great extent
a. I have tried to develop students' skills in making global connections	O	O	O	O	O
b. Most students have learned to make global connections while in my class	O	O	O	O	O
c. I have been able to effectively assess students' skills in making global connections	O	O	O	O	O

LOCAL CONNECTIONS refers to students being able to apply what they have learned to local contexts and community issues.

1. Here are some examples of practices that may help students learn to make LOCAL CONNECTIONS.

In your teaching of your TARGET CLASS, how often have you asked students to do the following	Almost never	A few times a semester	1-3 times per month	1-3 times per week	Almost daily
a. Investigate topics or issues that are relevant to their family or community?	O	O	O	O	O
b. Apply what they are learning to local situations, issues or problems?	O	O	O	O	O
c. Talk to one or more members of the community about a class project or activity?	O	O	O	O	O
d. Analyze how different stakeholder groups or community members view an issue?	O	O	O	O	O
e. Respond to a question or task in a way that weighs the concerns of different community members or groups?	O	O	O	O	O

2. To what extent do you agree with these statements about your TARGET CLASS?	Not really	To a minor extent	To a moderate extent	To a great extent	To a very great extent
a. I have tried to develop students' skills in making local connections	O	O	O	O	O
b. Most students have learned to make local connections while in my class	O	O	O	O	O
c. I have been able to effectively assess students' skills in making local connections	O	O	O	O	O

USING TECHNOLOGY AS A TOOL FOR LEARNING refers to students being able to manage their learning and produce products using appropriate information and communication technologies

1. Here are some examples of practices that may help students learn to USE TECHNOLOGY as a TOOL FOR LEARNING.

In your teaching of your TARGET CLASS, how often have you asked students to do the following	**Almost never**	**A few times a semester**	**1-3 times per month**	**1-3 times per week**	**Almost daily**
a. Use technology or the Internet for self-instruction (e.g., Kahn Academy or other videos, tutorials, self-instructional websites, etc.)?	O	O	O	O	O
b. Select appropriate technology tools or resources for completing a task?	O	O	O	O	O
c. Evaluate the credibility and relevance of online resources?	O	O	O	O	O
d. Use technology to analyze information (e.g., databases, spreadsheets, graphic programs, etc.)?	O	O	O	O	O
e. Use technology to help them share information (e.g., multi-media presentations using sound or video, presentation software, blogs, podcasts, etc.)?	O	O	O	O	O
f. Use technology to support team work or collaboration (e.g., shared work spaces, email exchanges, giving and receiving feedback, etc.)?	O	O	O	O	O
g. Use technology to interact directly with experts or members of local/global communities?	O	O	O	O	O
h. Use technology to keep track of their work on extended tasks or assignments?	O	O	O	O	O

2. To what extent do you agree with these statements about your TARGET CLASS?	**Not really**	**To a minor extent**	**To a moderate extent**	**To a great extent**	**To a very great extent**
a. I have tried to develop students' skills in using technology as a tool for learning	O	O	O	O	O
b. Most students have learned to use technology as a tool for learning while in my class	O	O	O	O	O
c. I have been able to effectively assess students' skills in using technology for learning	O	O	O	O	O

What are your beliefs toward teaching 21st century skills?

……..

……..

……..

SECTION THREE: DEMOGRAPHIC INFORMATION

1. Gender: [ ] Female [ ] Male

2. Age: [ ] 20-25
[ ] 26-30
[ ] 31-35
[ ] 36-40
[ ] 41-45
[ ] 46-50
[ ] 51 and above

3. Highest academic qualification: [ ] Bachelor's degree
[ ] Master's degree
[ ] Doctorate degree
[ ] Others

4. Years of English Language Teaching (ELT) experience: [ ] < 1 year
[ ] 1 – 3 years
[ ] 4 – 6 years
[ ] 7 – 9 years
[ ] 10 – 12 years
[ ] 13 – 15 years
[ ] > 15 years

SECTION FOUR: CONTACT INFORMATION

Would you like to share more about your language teaching beliefs and practices in relation to teaching of 21st century skills in a follow-up second phase of this study*? If yes, kindly provide your contact information below.

[ ] Yes. My email address is ……
[ ] No.

Phase 2 study involves:

- Discussion of your survey responses
- Multiple interviews (10-25 minutes (Post-observation) and 30-40 minutes (Pre-observation))
- Three classroom observations
- Descriptive in nature rather than evaluative

Nonetheless, providing your contact information here is not a commitment to participate Phase 2 study because Phase 2 participants will be selected from the group of respondents that indicated their own interest in Phase 2. Selected participants will be contacted in late-September to let you know whether you were selected. Selected participants who complete Phase 2 study will receive a token of appreciation.

END OF SURVEY

Thank you very much for your participation in this survey. I wish you success in all your future endeavours.

Appendix C: Semi-Structured Interview Protocol

Revised version

Pre-interview data collection (by email)

Teacher profile:

- Hometown (Country):
- Education background/ Qualification/ Teacher education:
- Years of teaching ELT in total (and years of teaching experience in the university):
- Specialization/ Interests:
- Recent trainings/ workshops/ conference you have attended:
- Employment position:
- Teacher's time table:

Initial Interview Questions:

Influences on beliefs and practices

- What are your core teaching beliefs and where do they come from?
- What are some of the aspects that affect your teaching practices/methods/style? (e.g., prior learning experience as a learner, experience from teaching, students, institutional factors) (Adapted from Gandeel, 2016)
    - How would you describe your students' motivation and attitudes in this class towards studying English, and how does it affects/guides the way you teach them? (Adapted from Gandeel, 2016)
    - How do you make decision on what to teach and what not teach?

Beliefs towards teaching roles and teaching English

- What are your ultimate goals in teaching English to your students? (Adapted from (Ding et al., 2019); Gandeel, 2016; Calderhead, 1996)
- How would you describe your role as an English teacher?
- How would you maximize students' learning opportunity inside and outside of classroom?
- In the process of developing English language skills, what are the common problems you face and how do you deal with them? (Adapted from Gandeel, 2016)
- What are your teaching approaches? (e.g. language teaching principles) How does that relate to your role as a teacher?

Beliefs and practices towards teaching of 21st century skills

- Which 21st century skills you tend to develop in your class? (You may indicate some of the points below) (Adapted from Hixson, Ravitz & Whisman, 2012)
    - How would you teach the skills? (e.g., pedagogical actions: strategies/approaches/techniques; classroom management: supports/ interactions/ participations; activities; teaching materials; technology tools)
    - Rationale: Why is it important that you develop these skills in students?

    - What works best for you and your class?
- Does the aspect of technology use enable/enhance the teaching of 21st century skills in the ELT? (Bell, 2010; Murray, 2005)

Closure:

- Is there a significant relationship between your teaching beliefs and instructional practices to develop 21st century skills in students? (Davis, 2018)/ Do you usually teach in line with your beliefs? Why? Do you think it is conscious? (Gandeel, 2016)
- Is there anything else you want to add that I haven't ask you about?

Pre-Observation Interview Questions:

- What did you cover in the previous lesson?
- What are your lesson plans for today?
    - What will students be able to achieve by the end of the lesson?
    - What activities and strategies will you use to help students to reach the goals?
- What beliefs as a teacher affect your decision making in the lesson plan?
- Which 21st century skills do you think you will cover in today's class?

Post-Observation Interview Questions:

- What do you think was particularly successful in the lesson? (Gandeel, 2016)
- How and what you did is relevant to your teaching beliefs? (Adapted from Gandeel, 2016)
- How do you feel about your approach in teaching aspects of 21st century skills? (Adapted from Gandeel, 2016)

Appendix D: Classroom Observation Guide

Teacher:

Class Title: Class Size:

Faculty/Program & Room:

Date & Time:

Goals of the lesson:

Relation to previous learning/subsequent class:

Time	Activity	Teacher actions	Student actions	Notes

Strength

Questions

Concerns

Overall comments:

Appendix E: Informed Consent for Research Participation

(Pilot Study for Online Questionnaire)

Title of the research: EFL Teachers' Beliefs and Instructional Practices For 21st Century Skills

Principal Investigator: Ei Leen, Yap
Advisor: Dr. Richmond Stroupe

1. Objectives of the study:

This pilot questionnaire aims to confirm usability, readability, and comprehensibility of the survey statements that are appropriate to explore the extent of EFL teachers' beliefs and instructional practices to implement 21st century skills in the English language learning courses in Phase 1 of the study.

2. Releasing study results:

The results of the pilot study will be included in the research component of the master's thesis as a part of the university's graduation requirement, and potentially be published in the academic journals and presented at international conferences.

3. Data collection method:

The pilot study will be conducted at a mutually convenient time and location as it is an online questionnaire. The online questionnaire will be sent via email to the convenient samples. Then, the following aspects will be considered and discussed in the pilot session with the investigator, namely (1) comprehensibly of the instructions, (2) comprehensibly of the questionnaire items, particularly if there are any ambiguous wording or grammatical mistakes, (3) order of questions or format of the questionnaire, (4) survey completion time commitment, and (5) additional suggestions or comments. The pilot study is expected to take 20-25 minutes to complete. The participants can either provide feedback electronically via email or verbally at a mutually convenient time and location. The feedback from the participants will be utilized as a guide to modify the questionnaire.

4. Selection of participants:

Two EFL teachers who are teaching at Soka University will be selected as the participants. All participants will be contacted via an invitation email that enclosed a detailed description of the study to participate in the research.

5. Anticipated risks:

There are no potential physical, psychological, or social risks to the participants. The pilot study does not request any sensitive, personal information. Participants are free to cease their participation at any time with no negative consequences. The anonymity and confidentiality will be ensured.

6. Benefits of the research to the participants or society:

- Opportunities to contribute to an overall understanding of language teachers' pedagogical beliefs and implementation of instructional practices for 21st century skills in a tertiary context.

- Develop a deep understanding in regard to how, what and why teachers do to integrate 21st century skills in the teaching and learning environment.
- Data will be used to reveal the current implementation of instructional practices for 21st century skills in the context of English language teaching.

7. Protecting personal information:

- All information collected in this study will be kept strictly confidential and anonymous.
- Data collected will only be accessed by the principal researcher, Ei Leen, Yap.
- Data will be anonymized in an un-linkable manner prior to any analysis.
- All data will be stored on a portable, password-protected data storage device that will be kept secure in a locked desk at Graduate Building on the university campus.
- All data files will be deleted or destroyed in July 2029.

8. Participation in the research:

- Participation in this study is voluntary.
- You will not be disadvantaged by choosing not to participate in the study.
- You will be able to withdraw from the research anytime without penalty.
- You will receive a copy of this informed consent form.

9. Contact information

Ei Leen, Yap, email: e18m3207@soka-u.jp
Dr. Richmond Stroupe, email: richmond@soka.ac.jp
1-236 Tangi-machi, Hachioji, Tokyo, Japan
Tel. +81-42-698-1995

I have read the explanation written by the investigators. I sufficiently understood the objectives of the study, research design, procedures and methods of protecting personal information. If I would like to receive a copy of the results, I am free to contact the researcher directly. By signing below, I agree to participate in this research.

Participant Signature: Date:

_____ _____

Investigator Signature: Date:

_____ _____

OR

I have read the explanation written by the investigators. I sufficiently understood the objectives of the study, research design, procedures and methods of protecting personal information. By clicking the 'agree' button, I agree to participate in this research.

[ ] Yes, I agree to participate in this research.

[ ] No, I do not agree to participate in this research.

Appendix F: Informed Consent for Research Participation

(Online Questionnaire)

Title of the research: EFL Teachers' Beliefs and Instructional Practices For 21st Century Skills

Principal Investigator: Ei Leen, Yap
Advisor: Dr. Richmond Stroupe

1. Objectives of the study:

One of the crucial methods in engaging teachers in the teaching profession is to understand the relationship between teachers' beliefs and practices. The purpose of this study is to explicate the extent of the reciprocal relationship between EFL teachers' beliefs and their instructional practices in developing 21st century skills among students in the English language learning courses.

2. Releasing study results:

The results of the online questionnaire will be included in the research component of the Master's thesis as a part of the university's graduation requirement, and potentially be published in the academic journals and presented at international conferences.

3. Data collection method:

The online questionnaire consists of four sections that will take approximately 20-25 minutes to complete. The last section of this survey seeks the respondent's interest to participate in the Phase 2 study.

4. Selection of participants:

All teachers of English (including part-timer or full-timer) who are teaching for the World Language Center (WLC) and the faculties in the Soka University in Fall 2019 will be included and self-selected to participate in this study. The EFL teachers can be identified as the teachers who are teaching in either general English courses (i.e.., English 1,2,3, and 4, TOIEC/ TOEFL test preparation courses) or departmental English language courses (i.e., courses associated as general English communication, English for Specific Purposes (ESP) or English for Academic Purposes (EAP)). All participants will be contacted via an invitation email that enclosed a detailed description of the study to participate in the research.

5. Anticipated risks:

There are no potential physical, psychological, or social risks to the participants. The online questionnaire does not request any sensitive, personal information. Participants are free to cease their participation at any time with no negative consequences. The anonymity and confidentiality will be ensured.

6. Benefits of the research to the participants or society:

- Having an opportunity to contribute to the overall understanding of the English language teachers' pedagogical beliefs and implementation of instructional practices for 21st century skills in a tertiary education context.

- The results of this study will reveal the current implementation of instructional practices in developing 21st century skills among students in the context of English language teaching.
- The research will develop your understanding in regard to why, how, and what teachers do to develop 21st century skills among students in the teaching and learning environment.

7. Protecting personal information:

- All information collected in this study will be kept strictly confidential and anonymous.
- Data collected will only be accessed by the principal researcher, Ei Leen, Yap.
- Data will be anonymized in an un-linkable manner prior to any analysis.
- All data will be stored on a portable, password-protected data storage device that will be kept secure in a locked desk at Graduate Building on the university campus.
- All data files will be deleted or destroyed in July 2029.

8. Participation in the research:

- Participation in this study is voluntary.
- You will not be disadvantaged by choosing not to participate in the study.
- You will be able to withdraw from the research anytime without penalty.
- You will receive a copy of this informed consent form.

9. Contact information

Ei Leen, Yap, email: e18m3207@soka-u.jp
Dr. Richmond Stroupe, email: richmond@soka.ac.jp
1-236 Tangi-machi, Hachioji, Tokyo, Japan
Tel. +81-42-698-1995

Do you wish to participate in this study?

[ ] Yes, I agree to participate in this research.

[ ] No, I do not agree to participate in this research.

Appendix G: Informed Consent for Research Participation

(Pilot Study for Interview Protocol)

Title of the research: EFL Teachers' Beliefs and Instructional Practices For 21st Century Skills

Principal Investigator: Ei Leen, Yap
Advisor: Dr. Richmond Stroupe

1. Objectives of the study:

This pilot interview protocol aims to confirm usability, readability, and comprehensibility of the interview questions that are appropriate to further explore the extent of EFL teachers' beliefs and their instructional practices to implement 21st century skills in the English language learning courses based on the analysis of Phase 1 study.

2. Releasing study results:

The results of this pilot study will be included in the research component of the Master's thesis as a part of the university's graduation requirement, and potentially be published in the academic journals and presented at international conferences.

3. Data collection method:

The pilot study will be conducted at a mutually convenient time and location. The pilot interview protocol will be sent via email to the convenient samples. Then, the following aspects will be considered and discussed in the pilot session with the investigator, namely (1) comprehensibly of the instructions, (2) comprehensibly of the interview questions, particularly if there are any ambiguous wording or grammatical mistakes or sensitive topic in the question, (3) order of questions, (4) time commitment for interview completion, and (5) additional suggestions or comments. The pilot study is expected to take 10-25 minutes to complete. The participants will provide feedback electronically via email or verbally at a mutually convenient time and location. The feedback from the participants will be utilized as a guide to modify the interview protocol.

4. Selection of participants:

The interview protocol will be piloted with two participants or reviewed by doctoral advisors if an amendment is required based on the quantitative analysis. All participants will be contacted via an invitation email that enclosed a detailed description of the study to participate in the research.

5. Anticipated risks:

There are no potential physical, psychological, or social risks to the participants. The interview does not request any sensitive, personal information. Participants are free to cease their participation at any time with no negative consequences. The anonymity and confidentiality will be ensured.

6. Benefits of the research to the participants or society:

- Opportunities to contribute to an overall understanding of language teachers' pedagogical beliefs and implementation of instructional practices for 21st century skills in a tertiary context.

- Develop a deep understanding in regard to how, what and why teachers do to integrate 21st century skills in the teaching and learning environment.
- Data will be used to reveal the current implementation of instructional practices for 21st century skills in the context of English language teaching.

7. Protecting personal information:

- All information collected in this study will be kept strictly confidential and anonymous.
- Data collected will only be accessed by the principal researcher, Ei Leen, Yap.
- Data will be anonymized in an un-linkable manner prior to any analysis.
- All data will be stored on a portable, password-protected data storage device that will be kept secure in a locked desk at Graduate Building on the university campus.
- All data files will be deleted or destroyed in July 2029.

8. Participation in the research:

- Participation in this study is voluntary.
- You will not be disadvantaged by choosing not to participate in the study.
- You will be able to withdraw from the research anytime without penalty.
- You will receive a copy of this informed consent form.

9. Contact information

Ei Leen, Yap, email: e18m3207@soka-u.jp
Dr. Richmond Stroupe, email: richmond@soka.ac.jp
1-236 Tangi-machi, Hachioji, Tokyo, Japan
Tel. +81-42-698-1995

I have read the explanation written by the investigators. I sufficiently understood the objectives of the study, research design, procedures and methods of protecting personal information. If I would like to receive a copy of the results, I am free to contact the researcher directly. By signing below, I agree to participate in this research.

Participant Signature: Date:

_____ _____

Investigator Signature: Date:

_____ _____

Appendix H: Informed Consent for Research Participation

(Semi-structure Interview)

Title of the research: EFL Teachers' Beliefs and Instructional Practices For 21st Century Skills

Principal Investigator: Ei Leen, Yap
Advisor: Dr. Richmond Stroupe

1. Objectives of the study:

One of the crucial methods in engaging teachers in the teaching profession is to understand the relationship between their teaching beliefs and practices. The purpose of this study is to explore the reciprocal relationship between EFL teachers' beliefs and their instructional practices in developing 21st century skills among students in the English language learning courses.

2. Releasing study results:

The results of this study will be included in the research component of the Master's thesis as a part of the university's graduation requirement, and potentially be published in the academic journals and presented at international conferences.

3. Data collection method:

Multiple individual or focus group interviews will be conducted at a mutually confirmed time and location. The interview will include open-ended questions and follow-up questions based on the interview protocol. The interview duration ranges from 10-40 minutes. Additional time may be needed depending upon the length of participant responses. The interviews will be recorded and transcribed.

4. Selection of participants:

Participants in the second phase of the study are the self-selected samples from Phase 1 study. The criteria to participate in the Phase 2 case study include (1) willing to offer time for multiple interviews, (2) allow classroom observations or videotape the classroom teaching practices, and (3) showed high means in the survey results. All participants will be contacted via an invitation email that enclosed a detailed description of the study to participate in the research.

5. Anticipated risks:

There are no potential physical, psychological, or social risks to the participants. The interview does not request any sensitive, personal information. Participants are free to cease their participation at any time with no negative consequences. The anonymity and confidentiality will be ensured.

6. Benefits of the research to the participants or society:

- Opportunities to contribute to an overall understanding of language teachers' pedagogical beliefs and implementation of instructional practices for 21st century skills in a tertiary context.
- Develop a deep understanding in regard to how, what and why teachers do to implement 21st century skills in the teaching and learning environment.
- Data will be used to reveal the current implementation of instructional practices for 21st century skills in the context of English language teaching.

7. Protecting personal information:

- All information collected in this study will be kept strictly confidential and anonymous.
- Data collected will only be accessed by the principal researcher, Ei Leen, Yap.
- Data will be anonymized in an un-linkable manner prior to any analysis.
- All data will be stored on a portable, password-protected data storage device that will be kept secure in a locked desk at Graduate Building on the university campus.
- All data files will be deleted or destroyed in July 2029.

8. Participation in the research:

- Participation in this study is voluntary.
- You will not be disadvantaged by choosing not to participate in the study.
- You will be able to withdraw from the research anytime without penalty.
- You will receive a copy of this informed consent form.

9. Contact information

Ei Leen, Yap, email: e18m3207@soka-u.jp
Dr. Richmond Stroupe, email: richmond@soka.ac.jp
1-236 Tangi-machi, Hachioji, Tokyo, Japan
Tel. +81-42-698-1995

I have read the explanation written by the investigators. I sufficiently understood the objectives of the study, research design, procedures and methods of protecting personal information. If I would like to receive a copy of the results, I am free to contact the researcher directly. By signing below, I agree to participate in this research.

Participant Signature: Date:

_____ _____

Investigator Signature: Date:

_____ _____

Appendix I: Informed Consent for Research Participation

(Classroom Observation)

Title of the research: EFL Teachers' Beliefs and Instructional Practices For 21st Century Skills

Principal Investigator: Ei Leen, Yap
Advisor: Dr. Richmond Stroupe

1. Objectives of the study:

Understanding teachers' beliefs and practices as a reciprocal relationship is a crucial element in gauging teacher professional development and engagement in the teaching profession. The purpose of this study is to explore the extent of EFL teachers' beliefs and instructional practices to implement 21st century skills in English language learning courses. The classroom observations are meant for descriptive purpose rather than evaluative purpose.

2. Releasing study results:

The results of this study will be included in the research component of the Master's thesis as a part of the university's graduation requirement, and potentially be published in the academic journals and presented at international conferences.

3. Data collection method:

Three classroom observations will be conducted at a mutually confirmed time and location. The classroom observations look at the enactment of instructional practices and beliefs. Participants are free to choose any three lessons to be observed. The observation may take no longer than 1.5 hours. It can be one slot of the lesson or one whole session. The detailed account of classroom events will obtain through audio-recordings or field notes. If participants are not comfortable with the fact that researcher is observing the actual class or afraid the presence of observation may disturb the class's atmosphere, the participant can videotape the class and share the data with the researcher for analysis.

4. Selection of participants:

Participants to be observed are the same participants that are chosen for phase two of the study. All participants will be contacted via an invitation email that enclosed a detailed description of the study to participate in the research.

5. Anticipated risks:

There are no potential physical, psychological, or social risks to the participants. The classroom observation does not request any sensitive, personal information. Participants are free to cease their participation at any time with no negative consequences. The anonymity and confidentiality will be ensured.

6. Benefits of the research to the participants or society:

- Opportunities to contribute to an overall understanding of language teachers' pedagogical beliefs and implementation of instructional practices for 21st century skills in a tertiary context.
- Develop a deep understanding in regard to how, what and why teachers do to implement 21st century skills in the teaching and learning environment.

- Data will be used to reveal the current implementation of instructional practices for 21st century skills in the context of English language teaching.

7. Protecting personal information:

- All information collected in this study will be kept strictly confidential and anonymous.
- Data collected will only be accessed by the principal researcher, Ei Leen, Yap.
- Data will be anonymized in an un-linkable manner prior to any analysis.
- All data will be stored on a portable, password-protected data storage device that will be kept secure in a locked desk at Graduate Building on the university campus.
- All data files will be deleted or destroyed in July 2029.

8. Participation in the research:

- Participation in this study is voluntary.
- You will not be disadvantaged by choosing not to participate in the study.
- You will be able to withdraw from the research anytime without penalty.
- You will receive a copy of this informed consent form.

9. Contact information

Ei Leen, Yap, email: e18m3207@soka-u.jp
Dr. Richmond Stroupe, email: richmond@soka.ac.jp
1-236 Tangi-machi, Hachioji, Tokyo, Japan
Tel. +81-42-698-1995

I have read the explanation written by the investigators. I sufficiently understood the objectives of the study, research design, procedures and methods of protecting personal information. If I would like to receive a copy of the results, I am free to contact the researcher directly. By signing below, I agree to participate in this research.

Participant Signature: Date:

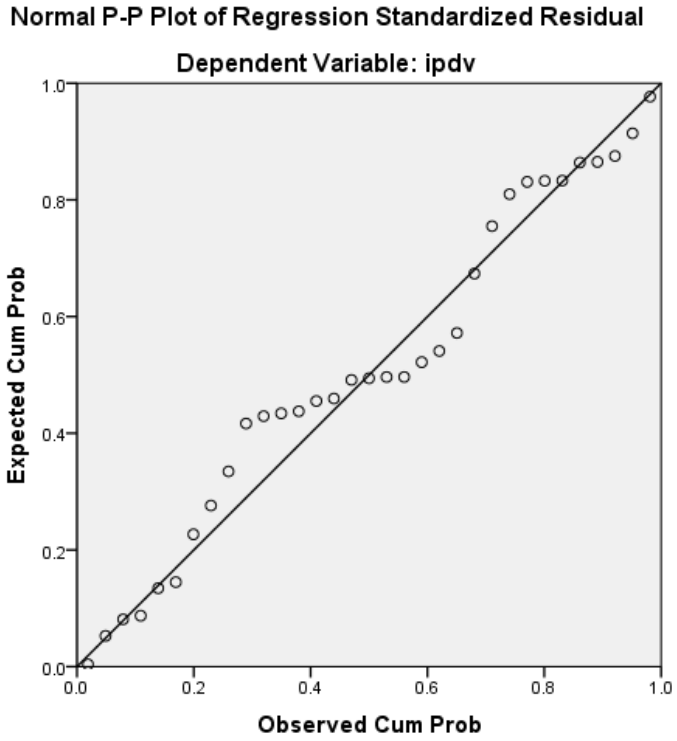
_____ _____

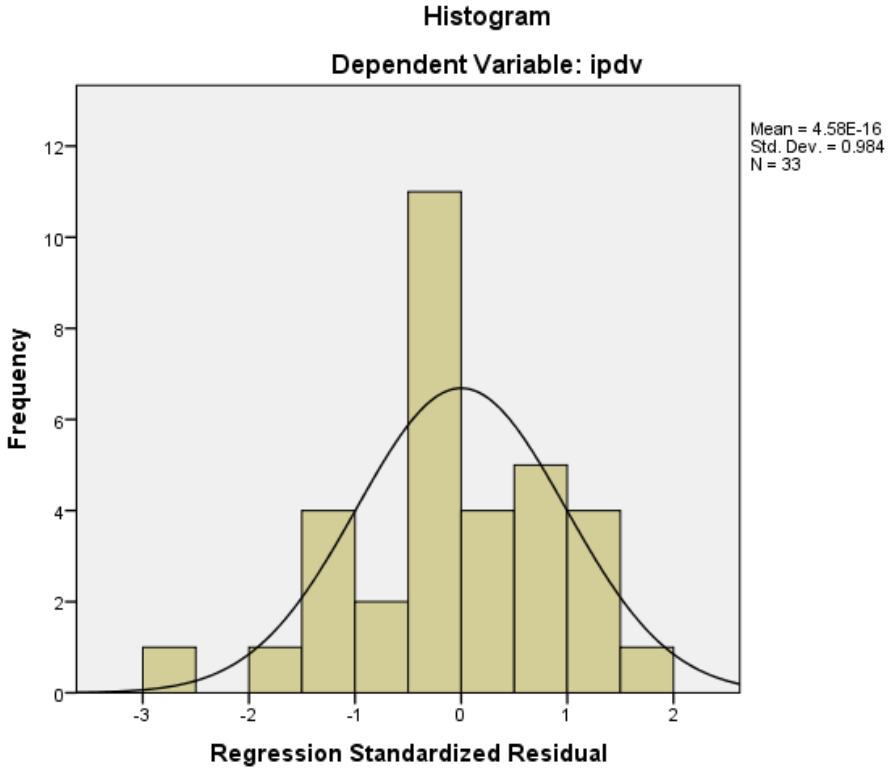
Investigator Signature: Date:

_____ _____

Appendix J: Linear Regression Assumptions

Assumptions of Normality Tests for Teachers' Use of Instructional Practices to Develop 21st Century Skills against Teachers' Beliefs towards Teaching 21st Century Skills





Regression Output: Residuals Statistic:

Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	88.4372	180.5939	127.7879	26.12678	33
Residual	-40.51374	30.26875	.00000	14.94577	33
Std. Predicted Value	-1.506	2.021	.000	1.000	33
Std. Residual	-2.668	1.993	.000	.984	33

a. Dependent Variable: ipdv

Appendix K: A List of Possible Skills-Related Instructional Practices

This list was taken from the section two in Appendix B – 21st Century Teaching and Learning Survey (Hixson, 2012; Ravitz, 2014).

CRITICAL THINKING SKILLS refer to 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
a. Compare information from different sources before completing a task or assignment?
b. Draw their own conclusions based on analysis of numbers, facts, or relevant information?
c. Summarize or create their own interpretation of what they have read or been taught?
d. Analyze competing arguments, perspectives or solutions to a problem?
e. Develop a persuasive argument based on supporting evidence or reasoning?
f. Try to solve complex problems or answer questions that have no single correct solution or answer?
COLLABORATION SKILLS refer to 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.
a. Work in pairs or small groups to complete a task together?
b. Work with other students to set goals and create a plan for their team?
c. Create joint products using contributions from each student?
d. Present their group work to the class, teacher or others?
e. Work as a team to incorporate feedback on group tasks or products?
f. Give feedback to peers or assess other students' work
COMMUNICATION SKILLS refer to 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.
a. Structure data for use in written products or oral presentations (e.g., creating charts, tables or graphs)?
b. Convey their ideas using media other than a written paper (e.g., posters, video, blogs, etc.)
c. Prepare and deliver an oral presentation to the teacher or others?
d. Answer questions in front of an audience?
e. Decide how they will present their work or demonstrate their learning?
CREATIVITY AND INNOVATION SKILLS refer to 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.
a. Use idea creation techniques such as brainstorming or concept mapping?
b. Generate their own ideas about how to confront a problem or question?
c. Test out different ideas and work to improve them?
d. Invent a solution to a complex, open-ended question or problem?
e. Create an original product or performance to express their ideas?
SELF-DIRECTION SKILLS refer to 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.
a. Take initiative when confronted with a difficult problem or question?
b. Choose their own topics of learning or questions to pursue?

c. Plan the steps they will take to accomplish a complex task?

d. Choose for themselves what examples to study or resources to use?

e. Monitor their own progress towards completion of a complex task and modify their work accordingly?

f. Use specific criteria to assess the quality of their work before it is completed?

g. Use peer, teacher or expert feedback to revise their work?

GLOBAL CONNECTIONS refers to students being able to understand global, geo-political issues including awareness of geography, culture, language, history, and literature from other countries.

a. Study information about other countries or cultures?

b. Use information or ideas that come from people in other countries or cultures?

c. Discuss issues related to global interdependency (for example, global environment trends, global market economy)?

d. Understand the life experiences of people in cultures besides their own?

e. Study the geography of distant countries?

f. Reflect on how their own experiences and local issues are connected to global issues?

LOCAL CONNECTIONS refers to students being able to apply what they have learned to local contexts and community issues.

a. Investigate topics or issues that are relevant to their family or community?

b. Apply what they are learning to local situations, issues or problems?

c. Talk to one or more members of the community about a class project or activity?

d. Analyze how different stakeholder groups or community members view an issue?

e. Respond to a question or task in a way that weighs the concerns of different community members or groups?

USING TECHNOLOGY AS A TOOL FOR LEARNING refers to students being able to manage their learning and produce products using appropriate information and communication technologies

a. Use technology or the Internet for self-instruction (e.g., Kahn Academy or other videos, tutorials, self-instructional websites, etc.)?

b. Select appropriate technology tools or resources for completing a task?

c. Evaluate the credibility and relevance of online resources?

d. Use technology to analyze information (e.g., databases, spreadsheets, graphic programs, etc.)?

e. Use technology to help them share information (e.g., multi-media presentations using sound or video, presentation software, blogs, podcasts, etc.)?

f. Use technology to support team work or collaboration (e.g., shared work spaces, email exchanges, giving and receiving feedback, etc.)?

g. Use technology to interact directly with experts or members of local/global communities?

h. Use technology to keep track of their work on extended tasks or assignments?