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**TEACHERS' AWARENESS AND ACTUAL PRACTICES OF 21ST CENTURY
LEARNING AND INNOVATION SKILLS**

**THESIS BY
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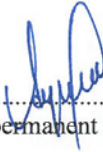


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DEDICATION

I dedicate this research study to my faithful mother Mevlide Demirkol, my dear husband Uğur Orak, and my lovely son Ömer Kayra Orak...

ETHICS DECLARATION

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I hereby declare that;

I prepared this master thesis in accordance with Çağ University Institute of Social Sciences Thesis Writing Directive,

I prepared this thesis within the framework of academic and ethics rules,

I presented all information, documents, evaluations and findings in accordance with scientific ethical and moral principles,

I cited all sources to which I made reference in my thesis,

The work of art in this thesis is original,

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Suheyly DEMİRKOL ORAK

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ABSTRACT**TEACHERS' AWARENESS AND ACTUAL PRACTICES OF 21ST CENTURY
LEARNING AND INNOVATION SKILLS****Suheyla Demirkol ORAK****Masters of Arts, Department of English Language Education****Supervisor: Prof. Dr. Jülide İNÖZÜ****May 2019, 111 pages**

This thesis aims to examine Turkish teachers of English language awareness, motivation, organization, and classroom practices in terms of 21st century learning and innovation skills which are communication, collaboration, critical thinking, and creativity skills. For this purpose, 26 Turkish teachers of English language in Fırat University School of Foreign Languages were chosen as the participants.

With the aim of manage the research study, mixed method descriptive case study was employed. In order to collect data, a questionnaire (self-report instrument) and interviews were implemented. Convenience sampling was employed in the stage of participant selection. Moreover, the collected quantitative data was analysed on SPSS version 2.00 and qualitative data was analysed with reference to interview questions. At the result chapter, the analysis were defined and discussed in order to be a source and a different perspective for the further researches.

The findings of the study presented that Turkish teachers of English Language in the context of the study were lack of theoretical and conceptual knowledge regarding 21st century learning and innovation skills, though they were motivated to promote them in the classrooms.

Keywords: 21st Century Learning and Innovation Skills, Communication, Creativity, Critical Thinking, Collaboration.

ÖZET**ÖĞRETMENLERİN 21.YÜZYIL ÖĞRENME VE YENİLİKLİÇİ BECERİLERİ
İLE İLGİLİ FARKINDALIKLARI VE BUNLARA YÖNELİK SINIF İÇİ
UYGULAMALARI****Suheyla Demirkol ORAK****Yüksek Lisans Tezi, İngiliz Dili Eğitimi Anabilim Dalı****Tez Danışmanı: Prof. Dr. Jülide İNÖZÜ****Mayıs 2019, 111 Sayfa**

Bu çalışmanın amaçları Türk İngilizce öğretmenlerinin 21. yüzyıl öğrenme ve yenilikçi becerileri –grup çalışması, yaratıcılık, iletişim kurma ve kritik düşünme becerileri- ile ilgili bilgilerini, motivasyonlarını, sınıf içi uygulamalarını ve kurumlarının bu açıdan öğretmenlerine olan desteğini incelemektir. Bu amaçla, Fırat Üniversitesi yabancı Diller Yüksekokulunda çalışmakta olan öğretmenlerin tamamı herhangi bir özel kriter olmadan katılımcı olarak seçilmiştir ve bu öğretmenlere 21. yüzyıl öğrenme ve yenilikçi becerileri anketi uygulanmıştır. Ayrıca kurumda çalışan 5 öğretmen ile röportaj yapılmıştır. Öğretmenler gönüllük esas alınarak seçilmişlerdir, özel bir seçim kriteri uygulanmamıştır. Bu çalışma süresince veriler anket ve röportaj yolu ile toplanmıştır. Sayısal veriler SPSS programında, sözel veriler röportaj soruları referans alınarak analiz edilmiştir. Toplanan veriler çalışmanın sonuç kısmında analizler ve yorumlar ile beraber, gelecek çalışmalara fikir ve yol gösterici olması için verilmiştir.

Bu çalışmanın sonuçlarına göre çalışmanın yapıldığı kurumda çalışan Türk İngilizce öğretmenlerinin 21. yüzyıl öğrenme ve yenilikçi becerileri bakımından gerekli teorik ve kavramsal bilgiden yoksun olduğu saptanmıştır. Bunun yanı sıra, öğretmenlerin 21. yüzyıl öğrenme ve yenilikçi becerilerini sınıf içi uygulamalar ile desteklemek bakımından motive oldukları ortaya çıkmıştır.

Anahtar Kelimeler: 21. Yüzyıl Öğrenme ve Yenilikçi Becerileri, İletişim, Yaratıcılık, Kritik Düşünme, Grup Çalışması

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ABBREVIATIONS

- KIITOS21** : Kiitos 21st Century Preschools – an integrated pedagogical approach to promote 21st century skills and second language learning (EU Project)
- MoNE** : Ministry of National Education
- OECD** : Organization for Economic Co-operation and Development
- PISA** : Programme for International Student Assessment
- P21** : Partnership21
- SPSS** : Statistical Package for Social Sciences
- 4Cs** : Communication, Critical Thinking, Collaboration, Creativity



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CHAPTER I

1. INTRODUCTION

Today we are living in a much more different world than in the previous centuries. Since the continuing developments are happening at an enormous pace in technology, today's century is '*sui generis*' cause of the novel strength of the humans to cooperate and race globally (Jacobson-Lundeberg, 2016). There has been a dramatically huge shift in terms of manpower in every corner of life. Manpower has given its place to mainly digital skills, information, technology, and education. The reasons of such a big change in the 21st century are "fast paced information technology changes, corporate downsizing, outsourcing, and the global work environment" (Jacobson-Lundeberg, 2016, p. 85). This shift has led to huge changes in the skills, competences, and even values in the field of education. As a result of these huge changes, a framework was developed by Partnership 21 (hereafter P21), and this framework consists of Traditional Core subjects and skills domain, the Learning and Innovations skills domain, the Career and Life skills domain, as well as the Digital Literacies skills. Kivunja (2014a), and Trilling and Fadel (2009) state that if young people are required to succeed in the 21st century, they need to get the education in accordance with its needs, and they can meet the requirements of the 21st century by applying P21 framework in their lives. And this research study is going to focus on the 21st century Learning and Innovation skills also called as 4Cs (communication, collaboration, critical thinking, creativity). P21 (2007b) explains that learning and innovation skills give importance to higher-order cognitive skills as these skills are considered as a gateway to be successful in the more demanding, social and complex life.

1.1. Background of the Study

As a result of world's coming closer to 21st century, a huge change parallel to the global paradigm shift is happening (Sahin, 2009). 21st century world changes are not occurring only in one or several places, but they are happening all around the world by effecting billions of people. Since this effect increases day by day, extension of the information has become more important than industrial manufacturing, and running power of the 21st century has been transformed into the intelligence principal of the

humans (Sahin, 2009). Not only in the field of education, but also in many other fields, big reforms were required, and countries of the 21st century developed a teaching and learning framework under the unity of the P21 to meet the requirements of the coming centuries in the field of education. This framework was prepared through the data gathered from teachers, education experts, and business leaders with the aim of guiding the way to define the required skills that students are expected to acquire to compete with the 21st century work and social life. And this framework has been benefitted in many countries which are placing 21st century learning and innovation skills at the centre of teaching and learning.

According to framework defined by P21 in 2007a, core subjects are English, Reading, Language Arts, World Languages, Arts, Mathematics, Economics, Science, Geography, History, and Government and Civics, interdisciplinary themes are Global Awareness, Financial, Economic, Business, Entrepreneurial Literacy, Civil Literacy, Health Literacy, and Environmental Literacy. These subjects and themes intensify on three basic skills: life and career skills, learning and innovation skills, and information, media, and technology skills. To achieve success both in school and career, P21 (2002) defines learning and innovation skills as one of the most important skills, and they are critical thinking, communication, collaboration, and creativity. Happ (2013) cites that both communication and collaboration are crucial factors for promoting creativity and critical thinking which encourage students to voice their thoughts, exchange information, and analyse the novel ideas. That is why it is possible to say that these learning and innovation skills are all interrelated.

Paalisbo (2017) states that in the 21st century, the job of teaching requires highly talented and competitive individuals, and this calls for the reforms in teaching vacation, especially in the field of English Language Teaching. Why specifically English? The reason is that English is the language of the global village. As also stated by Zivkovic in 2016, to be a part of the global competition, the pressure should be on the language part of the education, and students need to be creative, communicative, and innovative, to think critically and analytically in order to solve the problems of the real world, and these qualifications are also identified as 21st century learning and innovation skills. As also cited by KIITOS21 (2018), 21st century language education should be different from the earlier centuries, while language education was based on the language rules in the past, today's language education should be task based, project oriented, and applicable to the daily life which means that the main goal should be students' taking

part in daily conversations in the target language. The expectation of the 21st century education from students is to use the language. With the aim of meeting this expectation, P21 reports that students should be provided language classes in the very early years of education in accordance with the 21st century learning and innovation skills, and Goethe-Institut (2011) supports P21 report. KIITOS21 (2018) is in the same opinion with P21 and Goethe-Institut, and they point that students can gain a language awareness from the very early years of childhood if they are presented proper language education in accordance with the 21st century requirements.

1.2. Problem Statement

There is an abundance of information regarding 21st century learning and innovation skills and teachers' readiness to integrate these skills into their instruction (P21, 2007b; OECD, 2009; King, 2012; Williams-Hamilton & West, 2013; Clarke, 2014; McKenna, 2015; Nazikan & Park, 2016). However, Li (2016) states that the studies related to teachers' beliefs, awareness, and motivation in terms of conducting lessons integrated with 21st century learning and innovation skills are quite few.

According to the records of the Organization for Economic Co-operation and Development in 2009 (hereafter OECD), universities in many countries have reported that they have renewed their curricula in the field of foreign language to keep up with the pace of the 21st century educational requirements and have modified their programmes, schedules or curriculums in accordance with the 21st century learning and innovation skills. In order to reach the promising generations both in the academic life and social life, P21 (2002) focuses on learning and innovation skills as one of the most significant skills which are critical thinking, communication, collaboration, and creativity.

OECD (2009) made a study for new millennium learners of 21st century skills and competences in the member countries, and reported that although Turkey gave place to 21st century learning and innovation skills in the curricula, there is no professional development for teachers. In the report, OECD underlines that critical thinking, creativity, communication, and collaboration, problem solving are all placed in the curriculum of the Turkish primary and secondary schools, and these skills are taught in the curricular areas, however ICT-related skills are taught separately. The report also focuses on the deficiency of the professional development programmes of

these competences. According to reports of the OECD (2009), Turkey comes at the last rows among member countries in terms of teaching English with application of 21st century learning and innovation skills. In the following years in Turkey, Ministry of National Education (hereafter MoNE) proposed to concentrate on 21st century skills in the new English curriculum in language classes (MoNE, 2013), but when the scores were examined provided by the Programme for International Student Assessment (hereafter PISA), it was reported that there was not a significant change in the students' English language speaking ability (OECD, 2016).

According to some scholars, the reason of the failure in the field of English teaching in Turkey is that it lacks the ability of 21st century learning and innovation skills and teachers' not promoting those skills in their classes (Doğanay & Ünal, 2006; Petek, 2018). They claimed that although English Language Teaching classes have existed in the curriculum of the primary school, secondary school, and higher education, students' English level is still low as they are not getting English education in line with the 21st century learning and innovation skills requirement.

Although 21st century skills have been applied in many fields from management, to economy, from health to geography, it is still very new in the field of English language teaching. There are many studies related to the failure in English Language Teaching, but the number of the studies conducted to examine teachers' actual practices and awareness of 21st century learning and innovation skills are really low. That is why the aim of this study is to find whether teachers are familiar with the 21st century learning and innovation skills namely critical thinking, collaboration, creativity, communication, and to what extent they promote 21st century skills in their language classes, and also whether teachers are motivated to promote them.

Why are the teachers starting point of the any movement of education reforms? In line with the common arguments in the literature (Kumaravadivelu, 2003; Kumaravadivelu, 2004; Langworthy, 2013; Li, 2016; Amran & Rosli, 2017; Eisner, 1995; Rusdin, 2018), teachers are the starting point of any reform in the field of education as they are the key points to transform the skills to the students. It is important to keep in mind that most of the today's teachers are not well-equipped with 21st century learning and innovation skills-4Cs adequately, and they are trying to keep up with the same pace of the highly digital world by pushing themselves hard. Education is like a chain, and both teachers and students are the circles of this chain. If one of them breaks or does not works properly, it will affect the others. And teachers

are the beginning circle of the chain, so it is important to analyse whether teachers are familiar with 21st century learning and innovation skills and the differences between their awareness and actual classroom practices.

1.3. Purpose of the Study

The purpose of the present mixed method study is to examine how Turkish teachers of English at Firat University in Turkey promote 21st century learning and innovation skills in language classrooms, whether teachers are familiar with the 21st century learning and innovation skills, and motivated to promote them in their classroom practices, and how these practices are aligned with 21st century skills. These higher-order skills are quite important and required in today's world. Teachers' awareness and priorities related to these higher-order skills can enhance the students' mastery degree and help them to keep up with the developments.

1.4. Research Questions:

The following research questions were developed to guide the study.

1. To what extent are the Turkish teachers of English language familiar with 21st century learning and innovation skills?
2. To what extent are the Turkish teachers of English language motivated to promote 21st century learning and innovation skills?
3. What are the practices that these Turkish teachers of English implement to promote 21st century learning and innovation skills?
4. How are these practices aligned with 21st Century Skills?

1.5. Significance of the study

Common European Framework of Reference for Languages (CEFR) (2018) underlines the importance of including 21st century learning and innovation skills into curriculum and insists on considering 4Cs as significant criteria for language education. Li (2016) emphasizes that studying on foreign language teachers' 21st century awareness, implementing thinking skills in their classroom activities, and evaluating the results of the study will provide education experts, teachers and policy-makers a guidance to set principles for their future implications.

Studies in the literature about teachers' awareness, classroom practices about 21st century learning and innovation skills are quite few. Li (2016) states that integrating learning and innovation skills into classroom practices is really important, and also teachers are encouraged in many organizations, but not much is known about teachers' awareness, conceptions, practices, and preferences about 4Cs integration into foreign language instruction. And also researching English teachers' awareness of 21st century learning and innovation skills and their classroom implementation can help first teachers, then principals, researchers, and policy makers to detect the principles to identify the process both in the classroom work or understanding and describing teachers' practices (Li, 2016). Cause of all the issues mentioned here, 21st century learning and innovation skills is a very hot topic to be studied and searched. Hopefully the present research study will bring a different perspective to the topic, and provide a different point of view to the researchers.

Teachers are the transformers of the knowledge. Knowledge is flowing from teachers to students. That is why the researcher selected to investigate the problem from teachers' perspective. They constitute the most important part. As also stated by Li "It is well-argued in the literature that teachers probably play the most significant role in implementing any innovation in education, it is important to investigate teacher cognition about and practices of teaching learning and innovation skills if any progress of integrating them into language instruction is made." (2016, p. 275). Teachers' concepts and beliefs about language learning effect their classroom activities, and guiding classroom practices are more significant than any other teaching the textbook approaches or applying any methodology (Burden & Williams, 2010). That is why teacher preparedness for the 21st century skills, especially the learning and innovation skills which are critical thinking, communication, cooperation, and creativity is quite important for the education.

1.6. Limitations

As also stated by Miller (2016), there are always limitations in a study that researcher has either little or no control, and these limitations can be named as number of the participants, sample size, sample kind, elements in the employed methodology, and duration of the study. In the present study, convenience sampling was employed cause of the limited time, and the researcher was already working in the context of the

study. This was one of the limitations of the study, and the other limitation was sampling size. Totally 26 English teachers were participated in the study, and as the number was low, interviews were also conducted to reach reliable and valid results. This research study is a case study, and this also can be considered as limitation cause of the generalizability issue.

1.7. Key Definitions

21st-century skills: The skills, knowledge, and expertise that students must master to succeed in work and life. These skills blend content knowledge, specific competencies, expertise, and literacies including learning and innovation skills, life and career skills, and information, common media, and technological skills (Partnership for 21st century learning, 2015). Marzano and Heflebower (2012) defines 21st century skills as cognitive and metacognitive skills for professional and post-secondary success (as cited in King, 2015).

Cognitive Skills: Cognitive skills include three main categories: analysing and utilizing information; defining and solving complex situations; creating mental images and figures (as cited in King in 2012 by Marzano and Heflebower) and these skills are called as learning and innovation skills-4Cs (communication, collaboration, creativity, and critical thinking) by P21 (2007a).

4Cs: The four sub-skills of the 21st century theme of learning and innovation skills, which are increasingly recognized as those skills needed for students to be prepared for a more complex life and work environment. The 4Cs are collaboration, communication, creativity, and critical thinking (P21, 2015).

Creativity: Creativity is widely understood as the ability to produce novel and useful ideas, ideas that not only are original and make a unique contribution to the field but also serve some purpose or fulfil some need. The need for creativity in the world of work transcends so-called “creative fields” such as the performing arts or architecture: Nearly every profession can benefit from the infusion of fresh and relevant ideas (P21, 2018)

Critical thinking: Miller (2016) reported the importance of critical thinking by stressing the shortage of the ability to solve the problems and define the major problems: create appropriate choices or guiding ways; interpret the data. Lai, DiCerbo,

and Foulz describes the critical thinking as making decisions based on the incomplete or misleading data (2017).

Communication: It is possible to be successful in many fields without being proficient in all the soft skills, but it would be difficult to reach a success without having communication skill. Communication skill has many forms as it gets the shape of the task. With the advancement in the technology, a new communication based problem has appeared as technological applications have got the place of the traditional communication as being the preferred method of conveying messages.

Collaboration: Working with others on the common goal is highly one of the demanded skills in the 21st century, since collaboration permits exchanging ideas among people with the same target and mind set. Also collaboration brings success in a shorter time than individual efforts and sharing ideas bring brainstorming spontaneously without any obligation. For the educational part, students need to learn to navigate and embrace different points of view through interacting in various collaborative activities.

CHAPTER II

2. LITERATURE REVIEW

In this chapter, a detailed review of literature is presented to have an insight into the research studies related to 21st century learning and innovation skills and foreign language education. The relevant literature review include a broad range of similar titles such as: globalization and its effects on language education, 21st century skills, partnership 21, communication, collaboration, creativity, critical thinking, and teacher motivation.

2.1. Globalization and Its Effects on Language Education:

The world has changed into a village thanks to the technological advancements as they decreased the distances and made easier the human power demanding workloads for the past few decades. Jacobson-Lundeberg (2016) pointed out the expeditious developments in technology as the cause of the uniqueness of the 21st century since the recently explored strength of humans to collaborate and race globally. Most of the explanations on globalization share the same ground in terms of collaboration, having common business, and communication by breaking boundaries with the aid of information, transportation, communication technologies, and the medium of all these advancements is English language (Altan, 2017; Archambault, Wetzel, Foulger, & Williams, 2010; Fandino, 2013; Jerald, 2009; Sarica & Cavus, 2009). There are various definitions of the globalization term depending on the context it is used, and it is mainly used to denote the technological advancements around the world. According to Friedman (2005), globalization is the term that presents persons the strength of communicating and competing globally. The term of globalization is used from economy to health, from education to social life. However, Miller (2016) highlights that there is nowhere more outstanding than education to apply the system of globalization. In line with Miller, García-Herreros (2017) emphasizes that 21st century globalized world has brought many needs for students and the most important need is to communicate in the second language fluently, which is an obligation for future citizens. English language is accepted as the language of the today's global world (Sarica & Çavuş, 2009).

English is the only valid language that can be understood by everyone all around the world. Globalization has brought competition together with itself not only in the national level, but also in the international level, and this dimension of the globalization necessitates competitive graduates from higher education organizations. Miller (2016) claims that deficiencies in the educational system, and globalized World advancements underline the need to surround the students with 21st century skills. Globalization and inadequacies with the educational system highlighted the need to prepare students with 21st century skills. This requirement was firstly felt in the U.S., U.K., and the other developed and developing countries. According to the World Bank (2011) reports, policy statements around the world urges upon the higher-order skills in education such as: critical thinking, creativity, learning together, and emphasize that they are significant for the future economic growth. At same time OECD (2014) indicates that communication, analytical thinking, patience, and strength are all equally essential requirements for individual and collaborative welfare in continually globalized World. As reported in the study by Guao and Woulfin (2016) that U.K. government was the first to get the suggestions from the National Advisory Committee on Creative and Cultural Education, managed by Ken Robinson since the end of the 20th century. And Fullan (2009) states that Finland, which has the most developed education system in the world, place the main importance on creativity, and meticulously generates teaching and learning frameworks for the future of its country. In addition, the cause of the China's top-down national principles whose purpose is to stimulate 21st century learning and innovation skills, 4Cs have been placed in the national curricula to keep up with the requirements of the new global world (Guao &Woulfin, 2016).

García-Herreros (2017) underlines that the 21st century global world has addressed many challenges, and educational organizations are working hard to manage these challenges by applying them according to students' needs. Advancements have brought main responsibilities and challenges especially to the teachers as they are the starting point of any changes in education. And they are the first cycle of the chain in the field of education (Kumaravedivelu, 2003; Li, 2016; P21, 2017). According to Rusdin (2018), educational experts and teachers are the decision makers of the output of 21st century learning and innovation skills. Rusdin (2018) states that teachers' awareness and professional development have an impact on their real classroom practices. Teachers play the main role in determining the outcomes of 21st century learning. Teachers' classroom practices and mastering degree of 21st century learning

and innovation skills direct students' perceptions of 21st century 4Cs which are communication, collaboration, creativity, and critical thinking. Accordingly, Happ (2013) states that over the few decades the world has faced up with a series of technological advancements which have effected major parts of life, and left the teachers with the obligation of integrating advancements in technology to the classrooms. McDonald (2005) indicates that teaching 4Cs is important for generating globally qualified citizens. In addition, Jerald (2009) stresses that as the world is rapidly changing in terms of technological advancements day by day in the positive meaning, graduates are facing with a demanding job market, and this brings the requirement of further than traditional education. Rusdin (2018) emphasizes that the need of generating competitive pupils with the ability of managing 21st century global world has been the centre of attention in the agendas of educational institutions.

As the internet is providing enormous opportunities with a continuing pace day by day, teachers' actual classroom practices of 21st century learning and innovation skills are becoming more important than teachers' perceptions about them (Siddiq, Scherer, & Tondeur, 2016). Teachers may be in favour of integrating learning and innovation skills into their actual classroom practices, but school policy, curriculum, and previous professional development trainings may bring some obstacles for teachers. Thus, it is possible to observe mismatches between teachers' actual practices and perceptions in terms of integrating 21st century learning and innovation skills.

Other than the teacher factor, age and gender are important factors effecting the use of 21st century learning and innovation skills. Teo (as cited in Siddiq et al., 2016) states that experienced teachers were more hesitant than novice teachers to apply modern skills in the 21st century into their classroom practices, and female teachers were reluctant to integrate technological applications into their classes. However, Roy (2016) stated that benefiting from technological advancements in the skill classes especially in writing brings more communication and collaboration to students' school life together with daily life in his own research area, and in their study conducted with 1072 teachers in Norway, Siddiq et al. (2016) revealed that there was not a big difference between genders in terms of implementation of learning and innovation skills in EFL classes.

Williams-Hamilton and West (2013) indicate some methods to integrate 21st century skills into classroom activities by keeping records, scaffolding students through encouragement, benefiting from technology and persuading them to attend the classes.

By using technology, teacher may help students to discover their creativity and may bring classroom a collaborative atmosphere. Today most of the schools may have the latest technological devices at their educational context, but without using them on purpose, they are useless. Many scholars and groups (P21, 2007a; OECD, 2009; Fandino, 2013; Happ, 2013; Clarke, 2014; Siddiq et al., 2016) put the emphasis on learning and innovation skills to reach the talented and competitive graduates.

Williams-Hamilton and West (2013) claim that being an expert in higher-order skills or having long years of professional development training does not bring success. To ensure the promising generations, changes and regular reforms in the schools' policy are necessary, and to reach the 21st century promising and competitive learners, as cited in Williams-Hamilton and West (2013), Luterbach and Brown prepared the list below in 2013 in Delphi study:

- Learner focused information
- Students' work at their own pace and not an age pace
- Teachers' role shift to guide, coach, or mentor
- Parent and community involvement
- Learner decision making with goal setting, how to pursue them (methods and resources), establishing target dates for completion
- Critical thinking and problem solving with real data
- Rather than utilize standardized test, create authentic portfolios
- Develop digital communication networks
- Teacher learning communities

As cited in Miller (2016) by Suárez-Orozco in 2005 “An intellectually curious, cognitively autonomous, socially responsible, democratically engaged, productive, and globally conscious member of the human family in the 21st century cannot be educated in the 20th century factory model of education” (p. 22). With the aim of meeting upcoming requirements of the 21st century globalized world, some of the developed and developing countries, organizations, policy makers, and education experts united under the name of Partnership21.

2.2. 21st Century Learning and Innovation Skills

Soland, Hamilton, and Stecher (2013) claim that creativity, critical thinking, communication, and collaboration which are also called as “21st century learning and innovation skills” or “21st century competencies,” have been centralized in the last several decades as they are the first step of the college and job preparedness. McKenna (2015) states that 21st century came to the surface in the early 1990s, when the leaders, experts, and policy makers started to become conscious about the upcoming improvements. The term ‘21st century skills’ has become to be pronounced together with term ‘*globalization*’. Many scholars and organizations claim that 21st century skills were born as a result of the improvements of the globalization (P21, 2007a; OECD, 2009; Fandino, 2013; Happ, 2013; Clarke, 2014; Williams-Hamilton and West, 2013; Siddiq et al., 2016). King (2012) states that the term ‘21st century’ has become a widely used expression which is benefited as a guidance for the educational system. There is an agreement on the issue that there is a reasonable information and skill gap between today and several decades ago. Several organizations such as P21 and OECD were established to work on this gap, and eliminate the mismatches between today and the past by forming frameworks and making researches. And to address the students’ and teachers’ preparedness for the 21st century, these organizations identified major skills and knowledge to be developed (King, 2012). One of the key skills of the 21st century defined by the P21 is ‘21st century learning and innovation skills’. In the present research study, four subtitles of the learning and innovation skills which are communication, collaboration, critical thinking and creativity were examined.

2.3. Partnership 21

In 2002, the Partnership 21st Century Skills (P21) was established by policy makers, education experts, advisors, and principles to form a framework to meet the requirements of the concerned era for educational organizations. P21 describes itself as an organization realizing all kinds of educational needs and experiences from birth to the very end career life, aiming to ensure the informative, competitive citizens in a technologically and globally interconnected life. And P21 has members all around the world, and describes itself as a key organizational body bringing policy makers, educational experts and leaders together with the aim of improving the education policy and keep up with the pace of the global world.

Zhao (2009) states that the framework prepared by P21 is the most commonly used guidance frame by educators. The framework clarifies the skills, knowledge, and expertise that learners need to have in order to be capable and competitive individuals both in the social life and working life.

According to framework defined by P21 in 2007a, core subjects are English, Reading, Language Arts, World Languages, Arts, Mathematics, Economics, Science, Geography, History, and Government and Civics, interdisciplinary themes are Global Awareness, Financial, Economic, Business, Entrepreneurial Literacy, Civil Literacy, Health Literacy, and Environmental Literacy (see Figure 1). These subjects and themes put the emphasis on three basic skills: life and career skills, learning and innovation skills, and information, media, and technology skills.

It worth's indicating that main areas involved in P21 are curriculum, instruction, professional development trainings, assessment, and learning context. P21 identifies these items as the necessary ingredients of the 21st century education system if the target is to reach the promising outcomes (P21, 2009a).

In line with the aforementioned points, core subjects are important to be dwelled on in the education system, and the educators should integrate core subjects into interdisciplinary themes (P21, 2009b).

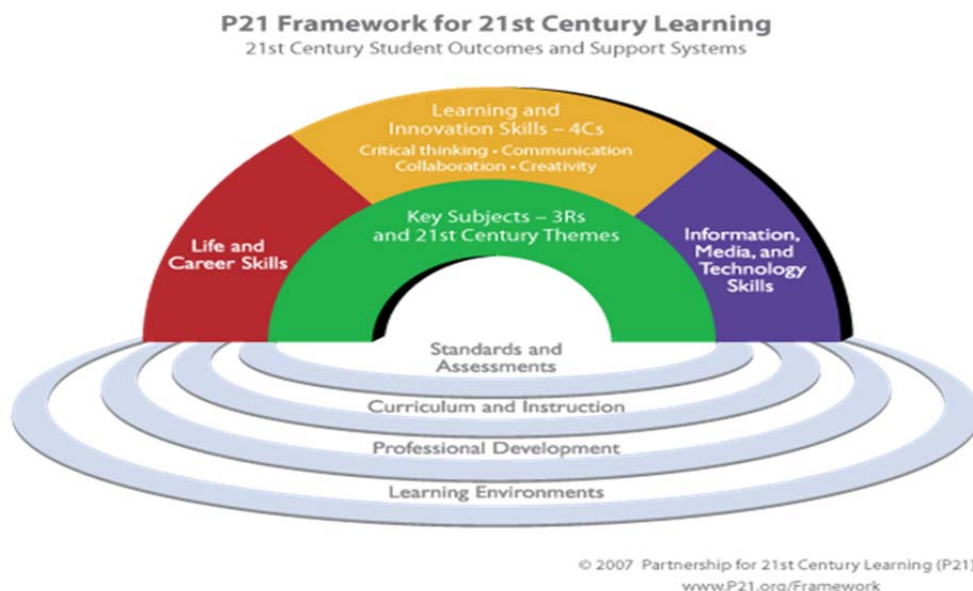


Figure 1. 21st Century Learning Framework (2011).

Learning and innovation skills focus on the higher-order cognitive skills which are also the main purpose of the present research study, and they are communication, critical thinking, collaboration and creativity. They are also named as 4Cs, and P21 (2007b) states that these skills are crucial for students in the competitive global world.

The next part of the framework explains media, technology, and information skills as the important components of the technologically advanced world (P21, 2009a). Not being an expert, but managing technology and information, testing and creating something on media are concerned as an inseparable feature of the 21st century citizenship.

The last skill of the framework is life and career skills, and these skills are flexibility, adaptability, initiative, self-direction, and social and cross-cultural skills. These skills are important as academic and cognitive skills of this century (P21, 2007b).

The guideline of the present research study is 21st learning and innovation skills. Kivunja (2015) emphasizes the importance of 21st century learning and innovation skills-4Cs, and states that in the 21st century, schools and workplaces have put the priority on the 4Cs since the variables of the Information Age has increased the need of multidisciplinary tasks, speed and versatility, so they are considered as the basic part of the new pattern.

2.4. Communication

As a running domain, communication has various sub-domains which are reading, writing, interpersonal communication, and public speaking among others (P21, 2017). Communication is transferring the message to audience or target group without caring the transportation way. Messages do not need to be conveyed either verbally or orally, it is also possible to convey the message by gestures or mimicry. The intention here is to transfer the main message to the audiences. In a similar vein, P21 (2017) states that it is possible to mention about a communication in a place if there is an exchange of information in order to reach the expected result.

P21 (2017) states that there is always a desired outcome in a communication activity, communication is open to variables to be affected by emotions, feelings, context, audience. Communication is especially effected from the patterns, and structures of what is transferred. Shannon and Weaver (1964) promoted a model for depicting communication briefly. The model was benefited widely while explaining the

communication skills in different contexts, and the model includes in turn source, message, transmitter, signal, channel, receiver, destination, and noise ((P21, 2017, p.7).

Source: The sender of a message (a speaker).

Message: The code conveying the information source's intended meaning (a sentence).

Transmitter: The apparatus that translates the message into a signal (the mouth and vocal cords).

Signal: The physical output of the transmitter (sound waves).

Channel: The medium through which the signal travels (air).

Receiver: The apparatus that translates the signal back into a message (the listener's eardrum).

Destination: The interpreter of the message, who must recover the meaning intended by the information source (the listener).

Noise: Undesired alterations to the signal (a loud cough).

These elements are the milestones of the communication, but in line with Shannon and Weaver (1964), P21 (2017) also underlines that as in the meal example; including all the ingredients in a meal does not mean that it will be a delicious meal, so carrying all the so-called elements in a communication does not mean that it will reach the desired outcome. As the reason of the undesired outcome, Shannon and Weaver (1964) points out the crafting style of the source and interpretation of the receiver.

According to Jacobson-Lundeberg (2016), the significance of the adorable communication is to transfer the information from one person to another like a circle of chain. Communication has provided the possibility of carrying information orally from one receiver to another until the invention of written language. That's why paralinguistic features are also considered as a form of communication.

As a term, communication has many meanings depending on the context it is utilized, but the most spread ones are exchanging ideas, transforming intentions, addressing feelings, listening for detail, and responding. In the framework developed by P21 (2017), communication is explained as a daily process in which information is exchanged in order to transmit the definition, and reach the targeted outcome.

Communication is one of the fundamental skills required for life, work, and school environment together with the rest of the 21st century learning and innovation

skills. OECD states the importance of the communication with these words “communication plays an important role in the preparation of students to be not only lifelong learners, but also members of a larger community with voice and a sense of responsibility to others.” (2009, p.10). P21 (2017) underlines the importance of communication by focusing on the various reasons, and they are; (a) Strong communication skills are associated with improved interpersonal relationships and health outcomes; (b) Reading skills early in elementary school are predictive of academic success in middle and high school, and strong communication skills upon entering college are linked to higher grades and graduation rates; (c) Employers seek job candidates with strong communication skills (p. 24).

P21 (2017) highlights the theoretical framework of the communication, and reaches main components in a model communication which are reaching desired outcomes, crafting clear messages, modelling others’ minds, adhering to conventions, accounting for social and cultural differences, selecting appropriate channels, active listening, and deep reading.

Crafting clear messages: Generating clear messages which transmit the desired information and properly getting use of gestures, mimes, and other non-linguistic tools.

Modelling others’ minds: Keeping in mind receivers or listeners’ pre-knowledge, bias, feeling.

Adhering to conventions: Obeying the rules of the contextual speaking conditions.

Accounting for social and cultural differences: Paying attention to various traditional communicative norms.

Selecting appropriate channels: Selecting the most suitable way of conveying meaning.

Active listening: Getting involved in the communication sincerely, observing and interpreting meaning.

Deep reading: Investigating the verbal or oral content seriously and reaching conclusion, and reflecting on it.

For efficient communication, Burkhardt et al. (as cited in King, 2012) state that communication necessitates three subcategories; (a) interpersonal skills, teaming, and

collaboration; (b) interactive communication; (c) civic, personal, and social responsibility.

P21 (2017) also suggests that if an individual wants to lead a happy life, that person needs to be a master at most of the communication forms. Communication came into existence with need of living together in the prehistoric times, and from that time on, life circles around the communication (Gönenç, 2007).

While it was common to benefit from all forms of communication until 21st century, in a study conducted in 2010 by Wagner, it was reported that online communication has replaced most of the traditional communication forms. Wagner (2010) reported that 87% of young generation use online communication tools around three hours every day. Wagner also states that when examined systematically, there is a clear increase in the number of the daily text messages. Wagner assumes that until 2000, around 14 billion text messages were sent, and by 2010 the number increased to 118 billion in each day. Technologically advanced communication tools surpassed the traditional face-to-face communication. As also stated by Wagner, people especially teenagers, are moving away from the daily face-to-face communication tools. They are preferring digital platforms to communicate. Wagner underlines that fast paced technological improvements are hampering traditional face-to-face daily communication tools.

And this dimension of the 21st century communication skills brings responsibility to the teachers at educational organizations to establish communicative platforms which are not only online platforms, but also discussion part, group work, and pair work opportunities in classrooms. Wagner (2010) emphasizes the importance of teaching students the traditional oral and written communication forms in the early years of the education. The more students are exposed to the traditional forms, the more their communicative skills will improve.

Benefiting from technological advancements in teaching communication skills is highly advised by many scholars (Sarıca & Çavuş, 2009; Mitchell, Skinner, & White, 2010; Fandino, 2013; Li, 2016; Rusdin, 2018), but to a certain degree. In the real meaning, communication is conveying the meaning in many forms, but not always through digital tools. Wagner (2010) reports that effective communication skills not only with managers, but also with colleagues through employing both traditional and digital methods are necessitated at working places by employers. Mitchell, Skinner, and White (2010) state that the importance of the communication in the field of education

has deepened with the advancements in technology. Robles (2012) describes that business leaders has started to ask for competitive graduates for employing them in accordance with the 21st century, and they put the emphasis on the soft skills which are also called as learning and innovation skills, and among these skills business leaders centralizes on communication and collaboration as they go hand in hand.

Some scholars (Roterham & Willingham, 2009; Wagner, 2010) claim that there is not appropriate 21st century learning and innovation skills education, and they ascribe the reason of this inadequacy to the educational system which has not met the requirement of the 21st century curriculum, and presented proper training or suitable assessment skills.

Rusdin (2018) focuses on meeting the requirements of the 21st century learning and innovation skills-4Cs and suggests teachers to integrate 4Cs into their language lessons by conducting brainstorming, role-play, games and other pupil-centred learning activities in line with the content.

Sarıca and Çavuş (2009) explain that improvements in the globalized world have enabled teachers to bring various activities into the classrooms in accordance with the requirements of the 21st century learning and innovation skills, and communication is one of the most common skills applied in the task based learning activities. They state that until 21st century, communication was not as applicable as in today's world, and also Sarıca and Çavuş (2008) underline the importance of application of technological improvements as a tool for communicating especially in English lessons. Communication was never so easy in the earlier decades. Sarıca and Çavuş (2009) also claim that the new English language teaching syllabus helps to improve pupils' talent to communicate through web based tools which also makes students more eager to learn.

Sarıca and Çavuş (2009) point out the technological applications such as skype, messenger, facetime, facebook, and mobile learning devices such as mobile phones and tablets as an aid in guiding students to communicate with native English speakers. Liontas (2017) claims that the importance of the communication in language education dates back to late of the 1970s, and emphasizes the authentic communicative activities with clear objectives in language teaching as an aid to improve communication skills of the students.

P21 (2017) categorises teaching communication skills under two main titles which are productions skills and reception skills. According to P21, production skills are: public speaking, interpersonal communication, and writing. And reception skills are: active

listening and reading comprehension. P21 reports public speaking as one of the most difficult communication forms that students are suffering from, and suggests presenting some relaxation techniques, and tips to give to the students for improving their presentation skills. In line with this, van Ginkel, Gulikers, Biemans, and Mulder (as cited in P21, 2017) provides teachers with some tips as in the following:

- Establish clear learning objectives
- Make presentations relevant to authentic activities in the discipline
- Present expert and peer models of successful performance.
- Offer practice opportunities
- Provide explicit and timely feedback
- Have peers provide formative feedback
- Help students to self-assess, potentially by using video recordings

For teaching interpersonal communication skills, role-play activities which are also video recorded are suggested to provide the students with immediate feedback about their performances and they are highly advised from various fields of teaching such as health and social sciences (P21, 2017). P21 states that if some strategies such as brainstorming, drafting, and managing the new forms are employed in the education, communication skill is also taught at the same time as a by-product of the activities.

Among the reception skills, there are active listening and reading comprehension. P21 (2017) explains that to be able to interpret the crafted message, the receiver should be an active listener throughout listening duration and the listener should listen to the target by keeping in mind the main theme. And reading comprehension focuses on the summarizing or elaboration of the reading context. P21 sums up some strategies to use reading comprehension as an aid for teaching communication skills.

Strategy	Description
Comprehension monitoring	Checking one's understanding to ensure that the text has been grasped
Paraphrasing	Restating the text into one's own words
Elaboration knowledge	Creating inferences that link the text to related knowledge
Using logic knowledge	Connecting text to common sense or everyday knowledge
Prediction the text	Generate predictions of what might come next in the text
Bridging inference	Linking individual sentences and describing their relation

2.5. Collaboration

In the last decades it has been easier to transfer the knowledge, and produce the products in a collaboration with the people away from us thanks to the advancements in technology and organizational supports in terms of generating something in collaboration. And to see generating a product with someone kilometres away from the existing working places also motivates people working at the different organizations at different positions from employees, officers, and workers to students, principles, and managers. Silva (2009) argues that collaboration is not a new skill in education, it has existed in the history for a long time, but it has newly gained importance and started to be taught in language education recently in the 21st century. Silva supports the importance of collaboration and communication together with creativity and critical thinking by emphasizing that before 21st century, 4Cs (communication, collaboration, creativity, and critical thinking) were also important, but 21st century has established new requirements for the graduates, and Silva reports that before 21st century, students' knowledge was important, but after 21st century, students' ability to employ the knowledge when needed is the most desired outcome of the language education.

Wagner (2010) explains collaboration as the capability to study, communicate, work, and produce something with others, and also show appreciation to differences in a cumulative work. Shifts from individuality to team based surroundings have brought productivity (King, 2012). In a similar vein, group works have brought analytical thinking in group environment, exchanging ideas immediately, and also getting

feedback from the peers. P21 (2017) calls the collaboration skill as one of the most important skills among 4Cs in all positions. Robles (2012) claims that communication and collaboration goes hand in hand. It is possible to talk about communication if there is any form of communication there, as people needs to use at least one of the communication tools to collaborate with somebody. With another terms, according to Shannon and Weaver (1964), there should be at least one sender, one message, and one receiver in a collaborative task. That is why communication and collaboration goes hand in hand. Collaboration is assumed as one of the fundamental skills in the 21st century education system (OECD, 2013; P21, 2017; Trilling & Fadel, 2009)

P21 (2017) reports that recent graduates are not meeting the employers' criteria to employ them in terms of deficiency in 21st century learning and innovation skills, especially in collaboration. According to P21, the reason of the deficiency is about the misunderstanding about the teaching of team work because collaborative learning styles were applied as a tool to teach the other tasks rather than as a way to teach collaboration skills themselves. The importance of the collaboration was emphasized drastically in the 20th century pedagogy, but its educational dimension and significance at working place was not examined in detail, so 21st century teachers must be qualified with these skills and give importance to group work and team work in their education style (Dede, 2010; Fadel & Trilling, 2009).

P21 (2017) emphasizes that the ability to collaborate is increasingly identified as an important educational outcome of itself rather than a mean of organizing instruction to teach other subjects. Teachers must utilize the group work and pair work activities as a facilitator. Dede (2010) states that teachers must be qualified with the classroom management skills to direct the flow of the group discussions. Collaboration brings the 21st century classrooms student-centred teaching as the collaborative tasks are directing the flow of the content. Kharbach (2012) emphasizes that if teachers are equipped with the 21st century skills, and also have organizational supports, which can be counted as technological appliances, time, and curriculum, students will be more motivated to work together. 21st century educational materials are rather integrative and providing both teachers and students with many opportunities, and these opportunities motivate students to work in collaboration to reach their goals (Trespalacios, Charmerlin & Gallagher, 2011).

Jacobson-Lundeberg (2016) states that from kindergarten to higher education, from educational contexts to working places, 21st century learning and innovation skills

comprise all people. Among the 21st century learning and innovation skills, Mitchell, Skinner, and White (2010) focuses on collaboration, and imply that collaboration skill can be considered as the door of generating output with other people from various backgrounds. And they also state that the very end product of the blended version of communication and collaboration skills is the promising human relations.

At this point Trilling and Fadel (2009) have some suggestions about classroom practices for teachers to improve the pupils' collaboration skills.

- Work positively and ethically
- Manage time and projects effectively
- Multitask
- Participate actively, as well as be reliable and punctual
- Present oneself professionally and with proper etiquette
- Collaborate and cooperate effectively with teams
- Respect and appreciate team diversity; and
- Be accountable for results (Trilling & Fadel, 2009, p. 83).

Kivunja states in his studies in 2014a and 2014b that collaboration is one of the most important skills that needed to be taught precisely to students with the aim of generating job-ready graduates, and suggests the steps developed by Trilling and Fadel in 2009 to be followed by teachers in the 21st century education system. Heinrichs (2016) states that educators should address collaborative tasks to reach a common goal, and teachers' role here is to present space for interactions in group work or pair work, operating time well, and providing an ideal group leader model.

P21 (2017) suggests providing students with immediate and explicit feedback, exchanging ideas with peers for improving students collaboration skills. P21 also states that improving and considering collaborative working style as a life style not only brings success in the academic career and working places, but also brings happiness in social daily life. Trilling and Fadel (2010) underline that if the aim is to adopt student-centred education, collaboration is the best way to be conducted in the classrooms, but teachers are required to choose the team members in the same level (there should not be gap between members' language level), and clarify the goal from the very beginning,

and instructors directing the collaborative task at the out of the circle present positive group atmosphere.

Lam (2013) states that presenting students with collaborative projects is very important in terms of improving their collaboration skills to reach a goal in a team. While P21 (2017) argues that there are two ways to conduct collaboration in classroom practices, one of them is to employ collaboration as a tool to reach the objectives of the content, and the other is to employ collaboration as the main goal of the task to be reached at the end, Kuhn (2015) concentrates on employing collaboration to make students gain other skills such as analytical thinking, problem solving, creativity, and communication. Lam (2015) urges upon the classroom implications of group works, and reports “*social loafing*”, which is described as not all of the group members taking active role in the group work, as one of the most challenging factors. And in order to prevent from non-contributing group members, P21 suggests assigning roles to students prior to the group work such as theoretician, summarizer, source searcher, moderator, and starter. Lam (2015) states that teachers are not getting professional group work trainings about timing, selecting teammates, and task cohesion, so this dimension of communicative task based learning effects students’ group work and pair work understanding.

Atai (2006) claims that instead of applying traditional non-authentic methods in teaching English, real life practices should be employed together with structural methodology. He suggests employing real life skills such as communication, collaboration, innovative thinking, and creativity in teaching English language. P21 (2016) describes that communication and collaboration are generally cited concurrently as they are perceived as the gateway for each other, powerful communication brings productive collaboration results.

Broadly speaking, many scholars (Atai, 2006; Trilling & Fadel, 2009; Mitchell et al., 2010; Kivunja, 2014a; P21, 2017) are in the opinion that teaching real life skills motivates teachers to teach more effectively, and motivates students to learn more eagerly much more than adapting the traditional methods.

According to P21 (2009), today’s globalized world necessitates the talent of working and producing something in group works by appreciating and respecting the diverse cultures, and languages. While until 21st century, the success was accepted as getting high scores from high-stake tests, in the 21st century success goes hand in hand with learning and innovation skills. And especially collaborative and communicative

skills are the centre of attention in the 21st century as they bring the brainstorming and contemporary solutions.

When it comes to narrow the frame of collaboration in terms of language education, P21 (2011) states the importance of collaborative learning in 21st century education system by citing that pupils as the collaborative learners use their mother tongue and foreign language in order to get the information from others, and work in a harmony with the other pupils from the other end of the world. Apart from producing something, they are also acculturated from each other. Collaborative tasks make the students gain some other useful qualifications to be a competitive graduate and P21 (2011) sums them up as following:

- Articulating thoughts and ideas clearly and effectively through speaking and writing
- Demonstrating the ability to work effectively with diverse teams
- Exercising flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal
- Assuming shared responsibility for collaborative work (P21, 2011, p.9)

Saavedra and Opfer (2012) suggest benefiting from teamwork or group work by employing them as a tool to reach the common goal, and they advise teachers to prepare the instructions of the content by not just relying on the book. This feature of the 21st century learning and innovation skills is also supported by Kumaravadivelu (2003). He states that teachers should stay away from the 'teach the book' approach, but instead organize the lessons in accordance with the daily life conditions in language classes. Pupils have the ability to discuss something with their teammates reciprocally, and convey the outcome to the rest of the classmates, and teachers and students can work on an addressed task together by managing the time and group members' task (Saavedra and Opfer, 2012). Saavedra and Opfer emphasize the importance of collaboration skill, and state that the talent of collaborating with others in a harmony is an important 21st century skill and also is one of the most significant conditions of excellent learning.

Urbani et al., (2017) cite that teachers should provide integrated communication and collaboration skills in language classrooms in order to reach developed instructional exercises. Daniel, Auhl, and Hastings (2013) state that to be able to reach improved instructional practices, teachers should address the inadequacy of providing students

critical feedback which is heard and responded immediately during the collaborative tasks.

While Valtonen (2017) claims that although many individual perspectives exist about the significance of the collaborative tasks, there are not many studies in the field about how to conduct it, many scholars suggest some ways about how to conduct collaborative tasks (P21, 2011; Saavedra & Opfer, 2012; Daniel et. al., 2013; P21, 2017).

P21 (2017) suggests some tips for educators to imply for improving students' collaboration skills.

- Educators should develop collaboration skills in students as an end in themselves not simply as a teaching method by which to learn other skills.
- When teaching and assessing collaboration, educators should see the skill as multidimensional, looking at the elements both individually and together.
- Educators should address few and detailed levels of collaborative tasks.
- Educators should select or design the appropriate task type for the situation and the learners.
- Educators should capture group interactions and processes either through observation (by the instructor or peers) or by using technology that captures and automatically analyses verbal communication and group decision-making.
- If students' collaborative skills are to improve, educators need to provide some combination of direct instruction in the skills of collaboration, opportunities to practice collaborating, and feedback.
- Peer evaluation using defined rubrics or scales can be implemented as part of an effort to increase collaboration skills.
- Generally, educators should use smaller, mixed-ability groups. Educators should consider using self-selected teams for learning activities but instructor-selected teams for assessment purposes.
- Instructors should experiment with embedding specific functional roles into collaboration tasks, particularly roles that emphasize desirable collaboration behaviours (P21, 2017, p. 2-3).

Miller (2016) describes collaboration as creating a platform for students to share their ideas to the people from the same perspective and from the opposite perspective and this provides the students the chance of navigating and acquiring different points of view on the same topic via collaborative tasks. Miller stratifies here on the duty of the teachers, as teachers need to create and address the students to meet the requirements of the collaborative tasks. As also underlined by Miller, basically assigning students with group tasks does not bring success as there would be more or less social loafing suggested by Lam in 2015, so teachers should always be there as a scaffolder. Roy (2016) also suggests that students can be asked for writing a story for each other, and summarizing each other's writing by correcting the mistakes and giving each other feedback, and finally present the last version of the story in front of the class. This will bring the chance of conducting nearly all of the 21st century learning and innovation skills.

2.6. Creativity

Apart from communication and collaboration, creativity is also one of the most significant 21st century learning and innovation skills. Being creative has always been questioned for centuries, but it has gained a new dimension in the 21st century with the advancements in technology and its effects on education system (Pellegrino & Hilton, 2012; Trilling & Fadel, 2009). According to Craft (2008), creativity roots back to 1960s in U.S., and then spreads all around the world. Guao and Woulfin (2016) are in the opinion that becoming the popular idea of 21st century education system of creativity comes from its gaining importance with the increasing demand from the employers, and that is why creativity has had a kind of renaissance in the 21st century. While many scholars considers creativity as a crucial component of the producing brand-new and original ideas or projects (Wagner 2010; National Research council, 2013; OECD, 2013; P21, 2018), still the same scholars have not reached a consensus on the definition of creativity. Miller (2016) states that there are various acceptable definitions of creativity. While some scholars concentrates on the dimension of combining independent ideas (Higgins & Reeves, 2006), the others are in favour of the definition of establishing relations among issues from different dimensions (Craft 2008; Happ, 2013). As creativity has a great value, especially in the field of education and entrepreneurship, it is mainly counted as one of the key abilities of 21st century learning

and innovation skills by P21 (2017). According to Bapna, Sahrma, Kaushik, and Kumar (2017), creativity is the talent of generating or the procedure of generating a product which is both unique and applicable. By all means, creativity term is applicable in many fields, and gains new meanings in the local contexts which are not so different from each other. However, it is worth remembering that the all contextual meanings are culture-specific (Trompenaars & Hampden-Turner, 2011). Innovation is the other term compensating the term of creativity in some context, and persistently defined as the inspiring power of 21st century financial development (Wagner, 2010). As a result of competitive globalized world requirement of innovative graduates, creativity has attained growing attention in education.

The advancements in technology in the 21st century has brought the computational thinking itself, and computational thinking has a driving force on students to use the technology in a creative way (Mishra, Yadav, & Deep-Play Research Group, 2013). Mishra et al. (2013) claim that when looking future, it is possible to see that enthusiastic software programmes users are all motivated to create different programmes with their deep knowledge in their own field as the 21st century technological and educational advancements provided both teachers and students with the opportunities to integrate the creative ideas and educational programmes. Mishra et al. sum the relation between creativity and technological advancements in three basic points: 1) computational thinking is required to be part of the educational curriculum as a support to improve creativity skill, 2) the partnership of persons' content awareness and technology can present deeper and innovative divination, 3) computational thinking never replaces the part of the human in action.

Bapna et al. (2017) and P21 (2018) are in the opinion that creativity is vulnerable to changes, and in accordance with the context, it is effected from the individuals motivation, intelligence, and surrounding. If teachers are motivated to develop creative tasks, students will be motivated in a similar way. Bapna et al. state that educators and students motivation can be intrinsic, which is about engaging with a process with persons' own sake, and it can be also extrinsic, which is engaging with producing something to meet the external goal or requirement. Bapna et al. found that generally intrinsic motivation is directly related to the creativity more than external motivation. P21 assumes that in terms of creativity, all fields can benefit from novel-strength and applicable ideas, and states that intrinsic motivation is one of the key factors effecting creativity in positive meaning. P21 underlines that the ideas being

creative or innovative should be decided by their being fresh and suitable to apply, and P21 counts awareness, information, previous practices, personal characteristics, supportive educational surrounding, supportive teachers, and intrinsic motivation as the basic factors for engaging in a work to produce something novel. Teachers' awareness of creativity and directing students' motivation and abilities to produce something in collaboration with team mates are main issues mentioned in the literature by many scholars under the heading of teachers preparedness (Li, 2016; Bapna et al., 2017; P21, 2017; P21, 2018; Sang, Liang, Chai, Dong, & Tsai, 2018). P21 ascertains that not many numbers of people attain the maximum level of creativity in their lifetime, but as the life continues creativity occurs in peoples' lives in various degrees. P21 suggests teachers' cooperative learning, observational activities, improvisation, role-play activities, and brainstorming activities for improving creativity skill of students.

Although being creative is a positive value if it is applicable in the content, P21 (2018) claims that producing novel and fresh ideas does not always bring high marks to the students if teachers' concern is not being students' producing unique ideas, but getting high marks from the exams. Teachers' knowledge and previous professional trainings are vitally important to be able to address creative tasks in classroom practices, and recognize students' abilities in order to canalize them in the right direction. There is not fixed records supporting the relation between creativity and academic success, but it is certain that creativity is highly asked for by employers (P21, 2018). There is not a fixed frame for identifying creativity as it is context-specific and culture-specific, but Kozbelt, Beghetto, and Runco (2010) identified 10 categories of ideal models of creativity.

- 1 Developmental theories are those that study the development of creativity over time, focusing on the interaction of people and their environments and characterized by the close biographical study of eminent creators.
- 2 Psychometric theories conceptualize the definition of creativity in terms of how it can be measured and reliably distinguished from related constructs.
- 3 Economic theories focus on costs and benefits of creativity for society, as well as market forces that affect creative expression.
- 4 Stage and process theories outline stages or steps in the creative process.
- 5 Cognitive theories articulate specific cognitive processes, strategies, and heuristics that spur ideation and elaboration.

- 6 Problem-solving and expertise theories stipulate that creativity is the result of domain expertise applied to ill-defined problem-solving.
- 7 Problem-finding theories focus on the creative process, particularly the subjective experience of the creator in understanding their motivation to create.
- 8 Evolutionary theories explain creative achievements as the result of evolutionary forces, such as blind generation and selective attention.
- 9 Typological theories approach the study of eminent creators by contrasting creative types defined by their working styles (e.g., seekers versus finders)
- 10 Systems theories situate creators within complex systems and view creative achievements as the outputs of a complex interplay between components within that system, including environmental factors, the state of the field or discipline, and a person's domain knowledge (as cited in P21, 2018, p.7).

Divergent theory, which is one of the most used theory in a well-known Torrance Tests of Creative Thinking (TTCT), became popular with Guilford in 1950. Guao and Woulfin (2016) cite that divergent thinking was one of the most visible result of the previous creativity tests. Divergent thinking is using opposite ideas in a harmony to enrich the creativity. It includes four sub-skills which are flexibility, adaptability, fluency, and originality (Guao & Woulfin, 2016; P21, 2018). Divergent thinking was also examined in the present research study through a questionnaire prepared by Mckenna in 2015. Runco and Acar (2012) emphasized that divergent thinking should not be used in the similar meaning with creativity, it is just one of the positive indicators.

There are some models in literature depicting the characteristics of creativity, and the most common of them are 4Ps by Rhodes (1961) and 5As by Glaveanu (2013), Rhodes 4Ps stand for Person, Process, Product, Press, and Glaveanu's 5A stand for Actor, Action, Artefact, Audience, and Affordance. According to Guao and Woulfin (2016), these subcategories have similar meanings under the umbrella of creativity. Guao and Woulfin state that the role of the teachers is very big in developing students' creativity skills, and canalize them in the right direction. Guao and Woulfin suggest some tasks to be practiced in the classroom by teachers. The suggested tasks are problem construction, conceptual combination, idea generation, and idea evaluation (Treffinger, 1995). Guao and Woulfin underline that teachers or other educational experts are required to enact the novel instructions and frames in details, and decide the

ways of integrating creativity into their curriculum and classroom practices. In P21 World Languages Skill map, it is stated that 21st century learners are demanded to direct their learning process by setting their own goals, producing novel ideas and sharing the ideas in a group via communication tool. As it is clear to observe that 21st century learning and innovation skills are not independent from each other, they are interconnected. OECD (2009) underlines that 21st century learning and innovation skills should not be considered as separate skills. That is why teachers are demanded to be qualified with the necessary skills to provide students with integrated 21st century classes.

2.7. Critical Thinking

21st century learning and innovation skills consist of four sub-skills which are communication, collaboration, creativity, and critical thinking, and Li (2016) states that thinking skills in the 21st century are also named as group thinking, learning to learn skills, creative thinking, and critical thinking. As also stated by OECD (2009) and P21 (2017), critical thinking skill is not a separate skill, and cannot be taught via traditional teacher-centred methods. Li underlines that it is a proven fact that presenting students integrated classes in terms of 21st century learning and innovation skills brings success in academic education and in daily life. Also Li suggests integrated lessons if the aim is to motivate or increase the encouragement about learning to learn skills. While 21st century learning and innovation skills are advised to be taught integrated, each of the four skills has different beneficial dimensions for individuals.

The significance of the critical thinking in education system is pronounced as a principal competency for 21st century (Soland, Hamilton & Stecher, 2013). Facione (1995) explains that critical thinking includes reasoning types such as inductive and deductive reasoning, making analyses, inferences and evaluations. Soland, Hamilton and Stecher (2013) cite reasoning, making inference, and evaluation as the key competencies for getting the meaning of the context, interpreting the content appropriately and also for future career. Soland et al. support integrating critical thinking skill into educational curriculums as it would be required from the graduates by employers, since employers would ask for employees who are capable of improving the quality of the products continuously with the aim of enduring the globally competitive economy. Petek (2018) states that critical thinking has been studied in different fields of

education in the last decades, but the number of the study conducted in the field of education is drastically few. That is why Petek suggests to concentrate on learners' awareness of critical thinking in the field of foreign language learning since there is a misunderstanding about how to be a critical learner. P21 (2011) defines critical learners as persons who criticize, examine, and interpret the issues from different dimensions to reach the basic and logical meaning and P21 identifies the learning outcomes of the critical thinking as following;

- Exercising sound reasoning in understanding
- Making complex choices and decisions
- Understanding the interconnections among systems
- Identifying and asking significant questions that clarify various points of view and lead to better solutions
- Framing, analysing and synthesizing information in order to solve problems and answer questions (P21, 2011, p.9).

Ravitz, Hixson, English, and Megendoller (2012) identify critical thinking as learners' examining complicated issues, questioning the issues whose solutions are not simple to reach from one way searching, and interpret the results for rationalizing to the immediate context. According to Paul and Elder (as cited in Petek, 2018, p.1-2) a critical learner needs to have the following qualifications:

- gathers and assesses relevant information, and effectively interprets it;
- comes to well-reasoned conclusions and solutions, testing them against relevant criteria and standards;
- thinks open-mindedly within alternative systems of thought, recognizing and assessing, as need be, their assumptions, implications, and practical consequences; and
- communicates effectively with others in figuring out solutions to complex problems (p. 4).

Zivković (2016) claims that students need to be critical learners as it is crucial to learn something from its roots with its reasons, not just the results in order to reach clear-cut solutions in the possible upcoming problems.

According to Li (2016), blending classroom activities with critical thinking raise both teachers' and students' motivation about their learning process. Li suggests integrating critical thinking skills like reasoning, analysing, inferencing, interpreting and evaluation to reading and writing tasks as they necessitate students to treat data in an analytical style, and reflect on it with their own learning manner. At this point Li points out that learners' and teachers' awareness and motivation are important to choose the right strategy to go one step further. Zivkoviç (2016) is in the opinion that students need to get critical thinking education from undergraduate years, as the employers are seeking for critical employees who have the ability of transferring their critical thinking skills for producing novel ideas. In a similar vein with Li, Zivkoviç agrees that critical thinking cannot be taught in isolation, it should be taught integrated with communication, collaboration and creativity as they all support each other, and if these skills are reached at the end of the educational terms at some certain levels, this will make students gain some extra points in social life. That is why it is suggested that curricula of educational organizations should not concentrate solely on linguistic forms, but also critical thinking, and the rest 21st century learning and innovation skills should be included (Brown, 2004). Zivkoviç identifies the critical learners' qualifications for the engineering English as Foreign Language (EFL) students as:

- know specific terms related to their future profession
- know principles and theories of engineering
- understand, analyse and interpret related information
- apply knowledge to new situations
- ask questions and seek answers to the questions (Zivkoviç, 2016, P.103)

Also Facione developed a model for teaching critical thinking skills in 1990 (as cited in Zivkoviç, 2016). Facione's model includes interpretation, analysis, evaluation, and inference with their sub-skills. Sub-skills are categorization, decoding significance, clarifying meaning, examining ideas, identifying arguments, analysing arguments, querying evidence, conjecturing alternatives, drawing conclusions, assessing claims, assessing arguments (Facione, 1990). Zivkoviç explains that topic can be selected related to students' department, and these sub-skills can be practiced to make the students gain critical thinking skills. Zivkoviç clarifies the reason of the significance of

being a critical learner as learners are expected to exchange their ideas with their mates, analyse, synthesize, and defend their opinions, so the main role here belongs to teachers to create blended learning activities which are encouraging and activating students to take part in the classroom activities eagerly. Altan (2017) underlines that 21st century globalized world has brought the big responsibility to English Language teachers in terms of presenting learning and innovation skills with the aim of generating promising generations. In a similar vein, Altan states that language educators are required to be proficient enough to bring various classroom activities in accordance with 21st century learning and innovation skills. P21 (2017) suggests teachers writing activities to improve the students' critical thinking skills, and explains the reason as writing tasks has shifted from product oriented to process oriented tasks in the last century which means that students have the opportunity to strengthen their skills by brainstorming, analysing, synthesising, interpreting the same topic by drafting it several times. Teachers need organizational supports in terms of integrating learning and innovation skills into their programmes, and professional development materials to teach the skills in the specific disciplines (P21, 2017). There are some suggestions for teachers to implement in classroom activities in order to improve critical thinking skills of learners:

- Educators should include critical-thinking skills in their teaching
- Educators should target each of the aspects of critical thinking in their instruction.
- Educators should situate explicit critical-thinking instruction in specific disciplines where applicable.
- Educators should consider using problem-based learning, scaffolded practice, and collaborative learning approaches to teaching critical thinking.
- Educators should consider using concept-mapping activities, simulations, and structured argumentation exercises to foster systems and argument-analysis skills.
- Educators should use the problem types as templates to help design or select appropriate critical-thinking assessments.
- Instructors should provide feedback on student performance at both the skills level and at the evidence level to scaffold learning of critical-thinking skills.(P21, 2017, p.2)

2.8. Teacher Motivation in Terms of Promoting 21st Century Learning and Innovation Skills in Classrooms

The need for generating competent learners has become one of the common topics under discussion among educational bodies (Rusdin, 2018). If the goal is to reach competitive graduates who are ready for meeting the requirements of the global world, it is an obvious fact that 21st century learning and innovation skills are one of the most vital skills to be focused. However, Eisner (1995) emphasizes that it is not enough to just adopt the popular skills or approaches of the century in order to enrich the educational level of the students, teachers are the first circle of the education chain, so teachers should be motivated and supported adequately to provide the classes in accordance with the 21st century education. Eisner states that both unity and diversity are crucial in culture-specific education, and teachers' preparedness of 21st century education is one another issue to be concentrated in terms of their motivation. Miles (2014) argues that although there are many studies related to 21st century education system, there are really few studies on the issue of teachers' preparedness, competencies, and motivation to present better education in accordance with the 21st century education. Miles claims that before asking why students are not equipped with 21st century learning and innovation skills, it is logical to ask whether teachers are competent enough or have previous professional development in these concerned skills to teach them.

Educators are expected to be aware of the 21st century learning and innovation skills, and make the students ready for the demands of globalized world (Miles, 2014). At this point teachers need some supports from their organizations in terms of training sessions, supportive curriculum, and timing. Miles suggests that there should be a deviation from what is taught to what is learned and should be adapted, and this is very crucial for preparing teachers for the upcoming novel ideas and approaches in the 21st century in terms of motivating them.

Sang et al. (2018) state that educators are the keys of the education system, and that is why it is vital to recognize the teachers' familiarity with the 21st century learning and innovation skills, whether they are supportive of educational reforms in terms of the globalized world needs, and to recognize the gap between their actual classroom practices and beliefs. Sang et al. explains that students' success in implementing the learning and innovation skills depends on the teachers' classroom practices and willingness.

Rusdin (2018) states that educators' interpretation and awareness of an educational reforms regulate their classroom practices, and teachers are the major factors deciding the success level of students' accomplishments as it is related to teachers' mastering 21st century learning and innovation skills. Rusdin suggests brainstorming games, role-play activities, and student centred learning activities to increase the students' motivation since it will affect the teachers' eagerness to create and bring various activities to implement in the classroom. Students' eagerness effect teachers' motivation to shift from teacher based classes to students based teaching as encouraged by 21st century learning and innovation skills. Rusdin reports that bringing various activities into the classrooms strengthens teachers' creativity to benefit from different novel ideas and techniques as much as possible. According to Osman and Başar (2016), educators' perspectives toward 21st century skills must be fostered with critical thinking, creativity, innovative thinking, decision making, communication, and collaboration.

Li (2016) states that the studies searching for the English language teachers' perceptions in terms of their motivation and competencies of 21st century learning and innovation skills are drastically low. Taylor (2009) cites that especially English language teachers should shift from the teacher based traditional methods concentrated on language to the more updated methods which are open to blend culture, technology, content, and lifelong skills. Li claims that employing critical thinking raise students' motivation to take part in the activities, and Zhang (2001) assumes language learning process as a metacognitive process, because basically reading and writing skills require metacognitive skills such as criticizing, interpreting, and evaluating what have been read and written, and these manners can be gained already through critical thinking and creativity skills integrated classes. Teachers' all classroom practices, whether they are promoting 21st century learning and innovation skills decide the lessons' outcomes. Therefore teachers' knowledge about the 4Cs, and motivation are important for instructional consequences.

2.9. Summary

In this chapter the related literature was reviewed in detail within the guidance of 21st Century 4Cs the 21st Century Learning and Innovation Skills were studied in this respect through the questionnaire and interviews in present mixed method descriptive research study. When the literature was reviewed deeply, it was seen that 21st century learning and innovation skills is a pretty new topic in the field of foreign language

education and there are many suggestions for teachers to utilize these skills in their classroom activities. Some of the research studies have proven that teachers are not either knowledgeable or motivated cause of the organizational or previous educational background related issues. That is why many researches are desired to be conducted in this field.



CHAPTER III

3. METHODOLOGY

3.1. Introduction

The aim of the present mixed method descriptive case study was to understand to what extent Turkish teachers of English Language teaching are familiar with the 21st century learning and innovation skills, and promote these skills in their classes within the context of School of Foreign Languages at Firat University. Employing higher-level cognitive skills at schools especially in language classes by teachers are significantly necessary for cultivating promising generations. In order to generate competitive graduates, teachers are required to employ higher-order skills by integrating them into classes, not as a by-product, but as an end product. In addition to investigating teachers' familiarity with the 21st century learning and innovation skills, this research study also examined whether teachers are motivated to integrate 21st century learning and innovation skills into their classroom activities.

While seeking to understand the teachers' awareness, knowledge, and motivation about 21st century learning and innovation skills, following research questions were developed to guide the study. The research questions were prepared in the light of the framework consisting of 21st century learning and innovation skills and themes developed by P21 (2002).

1. To what extent are the Turkish teachers of English language familiar with 21st century learning and innovation skills?
2. To what extent are the Turkish teachers of English language motivated to promote 21st century learning and innovation skills?
3. What are the practices that these Turkish teachers of English implement to promote 21st century learning and innovation skills?
4. How are these practices aligned with 21st century Skills?

This chapter describes research setting, participants and sampling, research design, data collection tools, and data analysis as well as ethical considerations.

3.2. Research Design

The researcher chose to conduct a mixed method descriptive research study as it was pointed out in the literature by many scholars (Alshengeeti, 2014; Bryman, 2012; Dawson, 2002; Gable, 1994; Hesse-Biber, 2010; Mckenna, 2015) that administering mixed method research studies always bring successful and reliable results. Alshengeeti (2014) also stated that “in a nutshell, researchers should however, choose the method that answers their research questions best, taking into consideration that the more accurate the researchers are when conducting and analysing the data, the more accurate the findings would be.” (p.44). In a similar vein, Creswell (2009) defines the strength of the mixed method by stating that quantitative method mentor the data, and qualitative method back up the former quantitative data process.

This mixed method descriptive case study was conducted at the mid-size School of Foreign Languages, to examine how Turkish teachers of English at Fırat University in Turkey promote 21st century learning and innovation skills-4Cs in language classrooms, whether teachers were familiar with the 21st century learning and innovation skills such as critical thinking, collaboration, creativity, communication, and how these practices were aligned with 21st century skills. The researcher was already working at the context of the research and no specific criteria was used while utilizing Convenience Sampling in the research study. All of the teachers working at the School of Foreign languages took part in the questionnaire, participants were chosen according to a kind of specific criteria. While 26 teachers took part in the questionnaire, interviews were held with 5 teachers.

For the quantitative part, a questionnaire was administered in the traditional paper-pen format. The Likert-type questionnaire was administered to understand teachers' familiarity and classroom practices in terms of 21st century learning and innovation skills-4Cs from the perspective of Knowledge, Motivation and Organization-institutional support (KMO).

To support the quantitative data, and have more detailed comments on the 21st century learning and innovation skills-4Cs, interviews were conducted. At the first step, the researcher asked the participants about their suitable time, and after fixing the common free time for both researcher and participants, interviews were held. While conducting the interviews, the researcher cared about time allocation for each question, defining any questions or concerns, and tried to get rid of the threat of leading the

interviews with any possible prejudice. Interviews were conducted in teachers' mother tongue. While translating the transcriptions of the interviews, online translation programmes were benefitted together with proof reading by a native speaker to decrease the loss of meaning,

As a result of conducting the mixed method, researcher reached both numerical data and narrative data (from transcriptions of the interviews). Thanks to rich output, the researcher had the opportunity to analyse the data deeply.

3.3. Research Setting

This mixed method descriptive case study takes place in the mid-size Preparation department of the School of Foreign Languages at Firat University located in the east part of Turkey. The School has two departments; one of them is distance learning department of English, and the other one is preparation department. The school is presenting English language classes to the preparation class students who are coming from machinery engineering department, software engineering department, English language and literature department, and English language and teaching department, and the school's student population is around 225. The goal of the school is to supply the students both daily and academic English with the aim of assisting them in their English-medium departments in the coming years. There are 26 English language teaching teachers and 13 prep classrooms. Classroom size is average 17, and students are getting around totally 26 hours English language lessons together with Computer Assisted Language Learning (C.A.L.L) lessons in a week. Total lesson hours are shared by co-teachers, and they are called as "main course 1" teacher and "main course 2" teacher as the lessons are called in the same way. Both teachers are using the same main course book, and teachers are starting each lesson by following each other from where they have stopped.

In the beginning of the year, students take a proficiency exam, and students who get the sufficient score pass to their departments, and students who cannot get the sufficient scores, start to get English language classes at the School of Foreign Languages. Modular system is employed at the school, and the system has four modules starting from module one and ending with module four. Students are taking elementary level English in module one, pre-intermediate level English in module two, intermediate level English in module three and they are taking skill lessons in the last module

(module four). Each module lasts 8 weeks, and students get English classes between 24-26 hours every week in each module. The school gives importance to practical information, not the theoretical grammar knowledge, and that's why students are required to put the theoretical knowledge (they have got in the first 3 modules) into practice in the last module.

For the assessment, there is one quiz, one mid-term, one final exam, CALL lessons' grades and four writing tasks. Apart from these, there is also classroom performance grade (CPG). All these assessment tools' percentages are different while calculating the final mark of the student to decide whether that student will pass the next module or repeat the same module.

3.4. Participants and Sampling

The present mixed method descriptive research study was conducted with 26 English language teaching teachers at the preparation department at the School of Foreign Languages. The quantitative part of the study was conducted with 10 male and 16 female teachers, and interviews were held with 5 teachers. Participants were graduates of English language and teaching department, English language and literature department, and department of English translation and interpreting (see Table 1 for the demographic information).

Table 1.

Demographic Information of the Participants

Academic Career	Gender	
	Female	Male
Graduate of Bachelor Degree	3	4
Studying MA	7	2
Graduate of MA	1	
Studying PHD	4	4
Graduate of PHD	1	
Total number	16	10

Convenience sampling was employed in the concerned mixed method descriptive research study. Saunders, Lewis, and Thornhill (2012) describes

convenience sampling as a way of collecting data from participants at any time they are suitable, without any specific criteria. No specific criteria was employed for the selection of the participants. All of the teachers were included in the quantitative part of the study. Also the researcher was working at the preparation department of the School of Foreign Languages (the research context) as an English teacher, since it would be more simple and easier to reach the participants and data, the researcher preferred to employ convenience sampling.

3.5. Data Collection Tools

3.5.1. Questionnaire

Questionnaires are also named as self-report instruments. The study here employed a thirty-two-item questionnaire with six-factor model in the first part and five-factor model in the second part developed by McKenna (2015) to learn about teachers' Knowledge, Motivation, and Organization (KMO). McKenna reported that the questionnaire was based on the P21 framework with the respect of 21st century learning and innovation skills-4Cs. There were 3 sets of questions, the first set of questions were inquiring about Knowledge (item 1, 2, 3, and 4), Motivation (item 5, 6, 11, and 12), and Organization (institutional support) (item 7, 8, 9, and 10). First part of the questionnaire were 6-point Likert scale type questions ranging from '*Strongly Disagree*' to '*Strongly Agree*', in the second group there were 20 questions which were 5-point Likert scale type ranging from '*Never*' to '*Always*'. Apart from 31 item questionnaire, there was also a third part in the questionnaire with 20 items which were trying to clarify reasons of the related items t in the second part.

Table 2.

Breakdown of the First Set of the Survey Questions

Knowledge	I have heard of 21st Century Skills
	I understand the concept of 21st Century Skills
	I know how to develop them in my students
	I am aware of my students' development of 21st Century Skills
Motivation	My students need these skills.
	I can positively affect student achievement by developing 21 st Century Skills.
	I am capable of delivering lessons that develop these skills in my students.
	I am interested developing these skills in my students.
Organization	My organization places emphasis on these skills.
	I have received training on 21st Century Skills.
	I have the time and materials necessary to develop these skills.
	The curriculum supports developing 21st Century Skills.

In the second set of the questionnaire, participants were inquired about their classroom practices in terms of 21st century learning and innovation skills-4Cs. For the participants selected 'Never' or "Seldom" as a respond in the second part, they were presented a list of challenges in the third part of the questionnaire as the reasons of 'Never' or "Seldom". The options were in accordance with KMO frame ranging from 'I have never heard of this' to 'Other' in the third part. For the participants responded the questions by selecting the 'Other' option, they were asked to give written answer in the open-ended question part (see Appendix 1).

The researcher of the present study added one more open-ended question by consulting the advisor of the research study, numbered as 52 which was 'Can you briefly explain a time when you incorporate learning and innovation skills into your lesson?' to get more detailed information about teachers' classroom practices. The questionnaire was administered in English, as there was no need to translate it into teachers' mother tongue.

3.5.2. Interviews

Brayman (2012) suggests interviews as the most administered type of data collection tools for qualitative researches, and points the flexibility of the interviews as the reason of being the centre of attention, and Dörnyei (2007) supports this suggestion by stating that there is an opportunity to clarify any puzzling questions or statements in the interviews. By conducting interviews in the present study, in addition to its' flexibility dimension, the researcher aimed to support the quantitative data, and to clarify any blind points related to teachers understanding, and real classroom practices in terms of 21st century learning and innovation skills. Interviews were conducted with 5 teachers at the School of Foreign Languages. Both Turkish and English versions of the interview questions were available, but Turkish version of the interview questions were used in order to prevent any misunderstandings. 7 interview questions were asked about the related literature (see Appendix 2). Questions were inquiring about teachers' familiarity, classroom practices, motivation, and sense of responsibility in terms of 21st century learning and innovation skills. The researcher prepared the questions from the perspective of KMO (see Table 3).

Table 3.

Breakdown of the Interview Questions

Knowledge	How knowledgeable are you with the term, 21st Century Skills? What are they? What skills should language teachers emphasize to prepare students for the 21st Century?
Motivation	Do you think that teaching 21st century skills is a kind of responsibility of teachers? If yes, how do you deal with it? Why? Why not? What are some of your classroom practices related to 21st century learning and innovation skills? How do you instruct students in developing critical thinking, and creativity skills? How do you instruct students in developing collaborative learning skills?
Organization	What supports do you need to promote 21st Century Skills?

Interviews were held in the School setting to assure familiar environment, and conducted after school hours to ensure the silence. Interviews were audio recorded to be transcribed later on for the emerging codes and themes. Interview questions were short and simple, jargon avoided.

In the present study, two of the participants were male and three of the participants were female. The interviews were conducted in mother tongue as the participants would feel more comfortable and safe while responding. Convenience sampling was employed in the interviews, and the only criterion was teachers being volunteer.

The anonymity issue was decreased by using pseudonyms when needed to give quotations as a proof from the interviewees' sentences. Lastly the degree of bias and inconsistency was decreased drastically by asking parallel questions to the quantitative questionnaire items.

3.6. Data Analysis

With the aim of providing trustworthy result, some steps were followed in the data analysis part, and for establishing the guiding steps, Creswell's data analysis steps were adapted (see Figure 2).

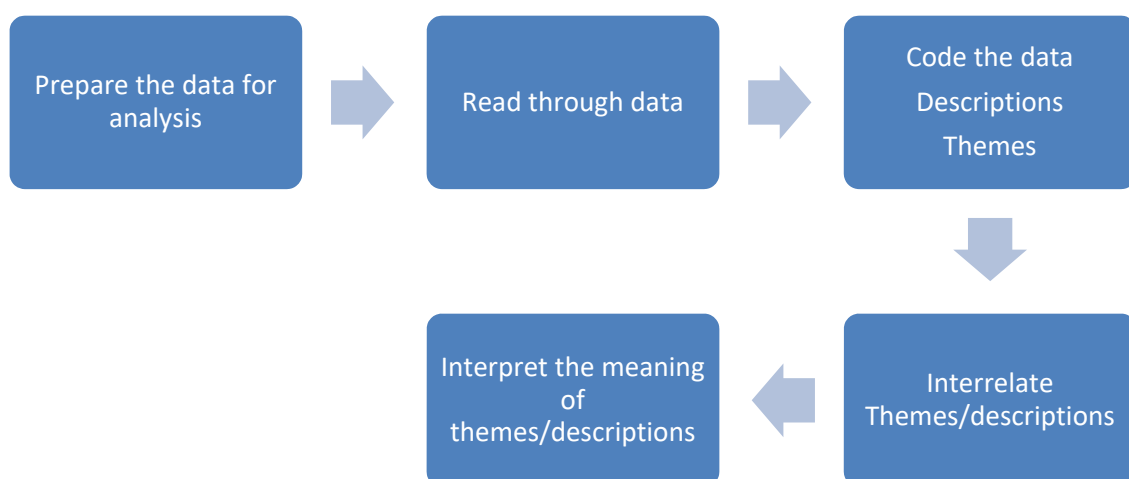


Figure 2. Data analysis, adapted from Creswell (2009, p. 185.)

Quantitative results were uploaded to the SPSS programme version 2.0, and descriptive study was conducted as the aim was to define teachers' knowledge,

familiarity and motivation without any intervention. Through descriptive study, items' mean scores, and standard deviation scores were explored to be interpreted in the following steps. And the results were interpreted in line with the research questions from the perspective of 21st century learning and innovation skills-4Cs. Results were prepared to be presented in the Findings Chapter. For the results of the questionnaire, for the first group of questions mean score 4 and higher (Mean score ≥ 4.0) accepted as positive high score, and for the second group of questions mean score 3, and higher (Mean score ≥ 3.0) accepted as positive high score since the owner of the questionnaire (McKenna, 2015) suggests these scores as proper values to be accepted positive.

Interviews and open ended results of the questionnaire were analysed in accordance with the interview questions. Interviews were employed in 5 different interview sessions. They were cross checked again by simultaneously listening the records and reading the transcriptions in case of missing some words or sentences. Records were transcribed for the emerging codes and themes. Themes were emerged in line with KMO frame and interview questions such as knowledge, motivation, organization, specific classroom activities, and curriculum.

3.7. Ethical Considerations

In the very beginning, the researcher applied to Çağ University to get Research Ethics Committee's approval to conduct the survey at the School of Foreign Languages in Firat Univeristy. After getting the approval from Çağ University (see Appendix 3), the document of approval was presented to both Rectorate of Firat University and School of Foreign Languages. Researcher conducted the research study only when the permission was approved from both Rectorate of Firat University and School of Foreign Languages (see Appendix 4).

As suggested by Dawson (2002), and Bryman (2012) the researcher made sure the participants about the anonymity and confidentiality. Prior to conducting the questionnaire, participants' consent was taken by a consent form prepared by the researcher (see Appendix 5). In the consent form, participants were provided with detailed information regarding the purpose, and significance of the study. Participants were also informed that necessary permissions were taken both from the Firat University Rectorate and School of Foreign Languages, and they were free to give up completing the questionnaire and interviews. For the interviews, apart from the formal

permissions, participants' permissions were also taken in terms of recording the interviews. Participants were ensured that their names would not be used in the transcription of data, only pseudonyms would be used if necessary.



CHAPTER IV

4. FINDINGS

4.1. Introduction

Findings of the present research study are presented with regard to the qualitative and quantitative findings of the study. The main concern of the study are as follows:

- a) to explore whether teachers are familiar with the 21st century learning and innovation skills,
- b) to examine their motivation in terms of practising 21st century learning and innovation skills in their classrooms,
- c) to investigate the teachers' practices of 21st century learning and innovation skills in language classrooms,
- d) to figure out how these practises are aligned with 21st century skills.

It is aimed that findings will shed a light on the fallowing research questions in terms of teachers' Knowledge, Motivation, and Organization with the respect of 21st century learning and innovation skills. The data of the study were analysed both quantitatively and qualitatively with respect to each research question. Qualitative part includes the open-ended question of the questionnaire along with the interviews. An overview of the findings of the research study are presented in the last section of the study. The research questions addressed within the scope of the current study are as follows:

1. To what extent are the Turkish teachers of English language familiar with 21st century learning and innovation skills?
2. To what extent are the Turkish teachers of English language motivated to promote 21st century learning and innovation skills?
3. What are the practices that these Turkish teachers of English implement to promote 21st century learning and innovation skills?
4. How are these practices aligned with 21st century skills?

4.2. Quantitative Results of the Study

The objective of conducting the questionnaire was to gather data about teachers' knowledge, motivation, organization, and classroom practices in terms of 21st century learning and innovation skills. Participants were inquired about their general knowledge in terms of the broad topic of 21st Century Skills in the first part of the 21st Century Learning and Innovation skills-4Cs (communication, critical thinking, collaboration, creativity) Questionnaire developed by McKenna (2015). Table 4 provides the details of the first part of the questionnaire, and presents information regarding teachers' Knowledge, Motivation, and Organization in terms of 21st century learning and innovation skills. The questionnaire utilized 6-point Likert scale questions by employing the following values respectively: (1) strongly disagree; (2) disagree; (3) somewhat disagree; (4) somewhat agree; (5) agree; (6) strongly agree. As suggested by McKenna (2015), mean score of 4 and higher than 4 (mean score ≥ 4) was accepted as a powerful indicator of KMO, and mean score of 3 was accepted as a neutral indicator, and mean score lower than 3 (mean score < 3) was accepted as a weak indicator of the relevant items in terms of 21st Century 4Cs.

Table 4.

Descriptive Results of the First Part of the Questionnaire (Broad topic of 21st Century Skills)

	Question	Mean	SD
Knowledge	I have heard of 21st Century Skills	4.53	1.36
	I understand the concept of 21st Century Skills	4.65	1.05
	I know how to develop them in my students	4.26	1.34
	I am aware of my students' development of	4.11	1.14
Overall Mean	21st Century Skills	4.38	
Motivation	I can positively affect student achievement by developing 21st Century Skills.	4.53	1.02
	I am capable of delivering lessons that develop these skills in my students.	4.23	1.06
	I am interested developing these skills in my students.	5.57	0.64
	Overall Mean	My students need these skills.	5.23
		4.89	
Organization	I have received training on 21st Century Skills.	3.11	1.68
	I have the time and materials necessary to develop these skills.	3.00	1.23
	The curriculum supports developing 21st Century Skills.	2.80	1.32
	My organization places emphasis on these skills.	3.50	1.14
Overall Mean		3.10	

Note. (n=26)

As shown in Table 4, most of the items related to teachers' Knowledge and Motivation in terms of broad topic of 21st century skills generated a mean score between 4 (*somewhat agree*) and 5 (*agree*) yielding a phlegmatic-to-positive correspondence among items. Item number 11 "I am interested in developing these skills in my students" and item number 12 "My students need these skills" yielded the highest mean scores (respectively 5.57 and 5.23). Which points out that teachers are highly motivated to promote 21st Century 4Cs in their classrooms. However items 7, 8,

9, and 10 which were coded for Organization generated a mean value between 2 (*disagree*) and 3 (*somewhat disagree*). The items coded for Organization yielded lower and neutral mean values which were accepted as negative scores, and the lowest result was item 9, “The curriculum supports developing 21st Century Skills.”, the participants believe that the curriculum is not fostering these skills (2.80). It is beyond their knowledge and motivation. While the majority of the participants were aware of the 21st Century 4C skills, and motivated to implement them in the lessons, their organization was not supportive enough to promote 21st Century 4C skills decently in the classes.

After responding the questions related to broad topic of 21st Century Skills, in order to examine to what extent they practise 21st century learning and innovation skills in their classroom activities, the participants were asked to respond to 5-point Likert scale questions. The rating pattern was from 1 to 5 respectively: (1) Never; (2) Seldom; (3) Sometimes; (4) Frequently; and (5) Always. The participants who have chosen ‘*Seldom*’ or ‘*Never*’ options in this part were asked to rate another part consisting of 20 line-up items about their reason(s) for not promoting 21st century learning and innovation skills in their classrooms. Among the options, there was also ‘*Other*’ which could provide the participants with a choice to give a full open-ended response at the end of the questionnaire. A mean score of 3 and higher (mean score ≥ 3) was accepted as a strong indicator of the related skills practised in the classroom.

Table 5.

Teachers' Current Classroom Practices

Skill	Mean	SD
Generating Conclusion	4.07	0.84
Presenting and supporting claims	4.00	0.84
Identifying basic relationships	3.96	0.72
Identifying common logical errors	3.73	1.00
Understanding interpretations	3.69	0.78
Focus	3.65	0.89
Navigating digital sources	3.57	0.98
Cultivating useful ways of thinking	3.42	1.23
Problem-solving protocols	3.38	0.85
Responsible interaction	3.30	1.37
Perspective taking	3.19	1.26
Divergent thinking	3.11	1.11
Generating mental images	3.07	0.84
Controversy and conflict resolution	3.03	1.37
Convergent thinking	2.84	1.08
Performing mental rehearsal	2.61	0.98
Conducting thought experiments	2.53	1.17
Avoiding negative ways of thinking	2.37	1.14
Drawing and sketching	2.23	1.10
Generating graphic representations	2.03	0.72
Total	3.23	0.60

Note. (n=26)

Table 5 sums teachers' 21st Century 4Cs classroom practices in detail. The results in the table illustrate that participants showed a mixed level of focus in terms of promoting 21st century learning and innovation skills in their classrooms. There are 20 items related to teachers' 21st Century 4Cs practices, and 18 of the 20 items indicated mean score lower than 4 which means that teachers are addressing the related 4Cs in the classrooms less than '*Frequently*'. Just items 15 '*Generating conclusions*' and 16 '*Presenting and supporting claims*' indicated positive classroom practices towards 21st century learning and innovation skills with the mean scores respectively 4.07 and 4.00.

Both of the items are related to creativity and critical thinking skills. Item 22 '*Creating graphic representations*' yielded the lowest skill practice with the mean score of 2.03. This finding indicates that teachers are conducting practices related to '*Graphic representations*' '*Seldom*'.

Teachers' current classroom practices can be categorized as below in Table 6. The practices were put in-order from the most to the least in accordance with their mean score depicted in Table 5. According to the mean scores shown in the Table 5, it is not wise to cite about fixed borders among teachers' 21st Century 4Cs practices. 21st Century 4Cs practices are all interrelated and also teachers' practising ways also effects its being collaborative and communicative. If the activities are conducted in groups, then it is possible to mention about communication and collaboration together with creativity and critical thinking skills.

Table 6.

Breakdown of Teachers' Classroom practices in Terms of 21st Century Learning and Innovation skills.

21st Century Learning and Innovation Classroom Practices	
Skill	
Communication and Collaboration	<ul style="list-style-type: none"> • Generating Conclusion • Presenting and supporting claims • Responsible interaction • Perspective taking • Controversy and conflict resolution • Performing mental rehearsal
Creativity and Critical Thinking	<ul style="list-style-type: none"> • Generating Conclusion • Identifying basic relationships • Identifying common logical errors • Understanding interpretation • Focus • Navigating digital sources • Cultivating useful ways of thinking • Problem-solving protocols • Divergent thinking • Generating mental images • Controversy and conflict resolution • Convergent thinking • Performing mental rehearsal • Conducting thought experiments • Avoiding negative ways of thinking • Drawing and sketching • Generating graphic representations

As mentioned earlier, the participants who has chosen 'Seldom' or 'Never' options about conducting the related item frequency regarding their 21st century 4Cs practises in the classrooms were asked about the reasons of their inadequate practices. They were presented a list of challenges to discover the reasons for their insufficient 4Cs practices in the classroom. The items, which were identified as the reasons for not promoting 4Cs decently, were prepared under the frame of KMO. The choice of 'Other' was also presented to provide the participants with the opportunity of explaining their additional reason or experience. All possible reasons provided to the participants are presented in Table 7.

Table 7.

KMO Challenges Regarding 21st Century Learning and Innovation Skills

21 st Century Learning and Innovation Skills	Number of Respondents						
	Knowledge Causes	Motivation Causes	Organization Causes				
	I've never heard of this	I don't know what it means	I don't know how	It is not a school priority	I don't have what I need (time/materials)	Other	
Navigating digital sources	0	0	0	0	2	0	
Identifying common logical errors	0	0	1	0	1	0	
Generating conclusions	0	0	0	0	1	0	
Presenting and supporting claims	0	0	0	0	2	0	
Focus	0	1	1	0	0	0	
Divergent thinking	2	3	2	1	0	0	
Convergent thinking	2	4	2	0	0	0	
Problem-solving protocols	2	1	0	0	1	0	
Identifying basic relationships	0	0	0	0	1	0	
Creating graphic representations	0	1	5	2	3	0	
Drawing and sketching	1	0	2	1	4	0	
Generating mental images	0	0	0	0	2	0	
Conducting thought experiments	1	1	6	1	2	0	
Performing mental rehearsal	1	0	5	1	2	0	
Understanding interpretations	0	1	1	0	2	0	
Cultivating useful ways of thinking	0	1	1	1	1	0	
Avoiding negative ways of thinking	0	1	0	0	1	0	
Perspective taking	1	2	1	0	1	0	
Responsible interaction	1	3	1	0	2	0	
Controversy and conflict resolution	1	0	1	0	2	0	
Total Responses	12	19	29	7	30	0	

Participants were presented a list of challenges regarding the causes of their insufficient practises of 21st Century 4Cs in their classrooms. And the list included Knowledge related causes, Organization related causes and Motivation related causes. As shown in the Table 6, participants chose totally 97 times all of the KMO related challenges in accordance with their reasons. Nearly 65% of the time (60 of 97 responses) *Knowledge* related causes were chosen, around 31% of the time (30 of 97 responses) *Organization* related causes were chosen, and the rest 4% of the time (7 of the 97 responses) *Motivation* related causes were chosen as the reasons of the failure in promoting 21st century learning and innovation skills in the classroom activities. Majority of the participants chose “I’ve never heard of this”, “I don’t know what it means”, and “I don’t know how” options which pointed out that *Knowledge* was the main reason of their not promoting 21st century learning and innovation skills in their classrooms. Organization related causes were chosen at the second place as the reason of the failure in promoting 21st century 4Cs in the classrooms. At third place motivation related causes were chosen. Participants illustrated higher motivation for promoting 21st century 4Cs in the both part of the 21st Century Learning and Innovation Skills Questionnaire. None of the participants chose ‘*Other*’ option as a reason to give full open-ended response at the end.

To sum up the quantitative results, it was indicated that while teachers had higher positive motivation and inadequate background knowledge about the broad topic of 21st century learning and innovation skills, their detailed classroom practices regarding 21st Century 4Cs were limited. Teachers pointed out the *Knowledge* related causes as the main reason of their limited 4Cs practices.

4.3. Qualitative Results of the Study

The qualitative data of the research study includes the data gathered from the open-ended part of the questionnaire and interviews. The purpose of the interviews was identifying participants’ consciousness of 21st century learning and innovation skills, motivation and ways of conducting these skills in their language lessons under the frame of KMO. With this purpose in mind, interviews were conducted with five instructors at the School of Foreign Languages in order to back up the quantitative data. Before conducting the interviews, all of the interviewees were provided with detailed information about the interview session. Interviews were tape-recorded by consulting

the interviewees' consent, and transcribed manually. Also the responses to the item numbered 52 "*Can you briefly explain a time when you incorporate learning and innovation skills into your lesson?*" added to the questionnaire to get more detailed information about teachers' classroom practices was analysed in accordance with the rapport between teachers' current practices and 21st century learning and innovation skill. By applying the procedure framed in the data analysis part in Chapter 3, transcribed data were analysed and findings were explained with reference to the interview questions. With the aim of getting rid of gender recognition, all of the interviewees are going to be called through the adoption of third person singular pronoun.

4.3.1. Teachers' Knowledge about 21st Century Learning and Innovation Skills

Teachers did not demonstrated theoretical and conceptual knowledge about 21st century learning and innovation skills in the interviews. However, it was observed that interview questions and contextual clues triggered teachers' background knowledge, albeit superficial, about the topic. When participants were asked about their general knowledge regarding 21st century learning and innovation skills, all of them emphasized that they deprive of terminological knowledge and theoretical background information about 4Cs as shown in the extract below.

I do not have a terminological knowledge about 21st century learning and innovation skills, but as can be understood from its name, I assume that these skills require some cognitive and instructional skills. Although I do not know about its background theory, I think that they are student-centred skills as they were born in the millennium. They can be as communication skill, problem solving skill and collaboration. (Respondent 1)

Although Respondent 2 (R2) and Respondent 3 (R3) stated that they were not very knowledgeable about 21st century learning and innovation skills, they presented some valuable detailed information through sharing examples from their own daily life and their classes. R3 reported for the first question that creativity, communication skill, analytical thinking, practical thinking, critical thinking, interactive group works are all about 21st century learning and innovation skills.

Although I am not deeply familiar with the 21st century learning and innovation skills, I know from my BA and MA education that communication, critical thinking,

collaboration, and creativity skills are the basic essential skills that needed to be promoted in language classes. (R2)

4.3.2. Teachers' Current Classroom Practices in terms of 21st Century Learning and Innovation Skills

When participants asked about the 21st century learning and innovation skills that should be emphasized in the classrooms, most of the participants reported that they gave priority to communication and collaboration skills in the classes. Respondent 1 stated that she uses various methods while teaching. She outlined that her aim was to make students feel outside the box. According to her, the students need to feel that they are at university, not at the high school any more. R1 added that she perceives collaboration, critical thinking, creativity and communication as the skills which can increase students' social and communicative language skills, so they can integrate themselves into the daily life in the target language.

I utilize role-play activities, pair work, group work, project presentations, interviewing with peers, recording a video, and storytelling activities in my various classes. Students are administrating all these activities in a collaboration, and I observe that their social daily language skills also improve together with their academic language in the process. (R1)

R1 and R3 approached collaboration and communication skills from the anxiety perspective. They pointed out that while students are not attending eagerly to individual activities and communicating with teacher in one-to-one activities with the fear of making mistake and seem ridiculous, they feel safe when they study with their peers without any hesitation.

It is not the only purpose to use the language for academic education in language teaching process. There is a difference between using language for academic purpose and for social life. Our aim is to make students gain some communication and collaboration skills by decreasing their language anxiety level to minimum as much as possible. (R1)

As a result of public speaking anxiety, some students hide their many skills, but teachers can overcome this problem through collaborative tasks. Collaborative tasks bring communication together and so, students reveal their own hidden skills. I strongly believe in the benefits of collaborative tasks, and even my MA thesis was on promoting pair work through speaking in language classes. (R3)

R3 reported that she was generally benefiting from various forms of communicative and collaborative activities through task based exercises. She also emphasized that she was also promoting critical thinking and creativity in her classes, but not as much as communication and collaboration as they are requiring more time.

I find communicative and collaborative activities very useful as they give the opportunity to students to learn from their peers, so I utilize group work, pair work and discussion activities a lot in my classes as much as possible. (R3)

I also give place to critical thinking and creativity skills in classes through videos, showing pictures and talking about them, and playing games. For these skills, I make preparation before class. For example, if I am going to teach something related to horror, I bring some videos related to the feeling of horror and ask students about their feelings. I also ask students to complete the story in the video in a group work. (R3)

4.3.3. Teachers' Feeling of Responsibility Regarding Promoting 21st Century Learning and Innovation Skills

All of the interviewees reported that it is one of the teachers' responsibility to promote 21st century learning and innovation skills in their classrooms as the aim is to generate promising competent graduates for globalized world. Interviewees stressed that teaching the language rules is not the only responsibility of the teachers, teachers should help students to gain 21st century learning and innovation skills. Most of the interviewees reported that the students are living in the millennium era and that's why students should be provided with language education in accordance with the era's requirements, and so promoting 21st century 4Cs is the duty of teachers.

It is not only the responsibility of the course books to promote 21st century learning and innovation skills. When we observe that course books are not meeting the requirement of the 4Cs, we should intervene and promote it according to immediate task. Our duty is not just teach the book and leave all the rest skills to be learned out of the school. We should place these 4C skills as a way to teach the language. (R1)

... teachers should show the ways of thinking, and teach learning strategies as a guide in the class because teachers should direct students' skills in the right way. When I assign the tasks to students to be conducted in groups, group members are not doing the works equally. That's why students should not be let alone after assigning the tasks, teachers should direct the activities to make them gain the communicative and collaborative skills together with other analytical skills. (R3)

As I feel myself responsible for updating my students 4Cs, in addition to the course book activities, I ask comprehension questions additively or necessitate students to write a scenario about the picture on the concerned page. I always start a lesson with questions about the topic and I try to teach the words in a context and let the students grasp the meaning of the word by activating and forcing their critical thinking. (R4)

R5 was in the belief that teachers' duty is not only presenting a lesson resonated with dull information. She strongly believes that 21st century learning and innovation skills should be promoted by teachers without questioning whether teaching these skills are the duty of teachers or not.

If we are preparing students for life more than exams, without any exception or finding an excuse, it is our responsibility to utilize 4Cs in the lessons.

... while trying to motivate the students to study more and improve themselves for minutes, why not to promote the 4Cs. Improving students' whole personality is our duty. (R5)

4.3.4. Teachers' Motivation Regarding Promoting 21st Century Learning and Innovation Skills in the Classes

In general meaning, teachers reported that they are motivated to promote 21st century 4Cs in their classrooms. However, interviewees complained about syllabuses since they were limited in time to cover the units, and so this cause the failure in promoting 4Cs properly in the class hours. That is why interviewees found syllabus demotivating factor for them while they were motivated by the course book materials and students willingness to learn English.

While there are many tasks related to 21st century learning and innovation skills in our course books, teachers are not free to practise them according to students' needs as the syllabus is the limitation. Timing and syllabus issues are demotivating me in terms of promoting these 4Cs in my classes as the aim is to just teach the rules and cover the unit, we do the exercises very few times. (R1)

All of the materials are adequate for teaching a decent lesson in accordance with the requirements of a real language teaching. However, we are in short of time cause of worrying about keeping up with the syllabus. (R4)

R2 asserted that her motivation is really high when she has the opportunity to practise these 4C skills, and make students enjoy while they are learning like R1. However, she reported that most of the times she does not have time to promote these

skills in a blended way freely, and she stated that only in the controlled activities she may have the chance to utilize one of these skills.

Although we would like to make students gain some social life skills in authentic situations, our course books are not supporting us. I do not mean that course books are inadequate in terms of these 4C skills. They are providing many pair work, group work activities, videos, and storytelling activities, but I mean that the time defined for each activity is very limited. (R2)

In line with the aforementioned view, R5 reported that her motivation source is the passion of her students' to learn.

Although our course book is not adequate in terms of encouraging creativity skill, it supports us related to communication, collaboration, and critical thinking skills. Apart from the book, my students' eager to learn feeds my motivation. (R5)

Most of the interviews reported that they are having challenges while conducting collaborative and communicative activities especially in the lower level classes as the students are coming from traditional student centred education.

As students are coming from traditional teacher based classrooms, students are unfamiliar with group work and pair work activities, and when their language level is low, the situation is becoming worse. (R4)

4.3.5. Organization Dimension of 21st Century Learning and Innovation Skills

Majority of the interviewees clarified their contentedness with the School management since they do not intervene their lecturing styles directly. However, interviewees reported their discomfort with the syllabus in terms of promoting 21st century 4Cs. Interviewees implied that syllabuses are planned exam-oriented by the management and this affects their classroom practices.

School management is not intervening our lecturing styles directly, they support us. However, it is an undeniable fact that teachers need to cover the units in the defined time because all of the students are going to have the same exam without specifying their proficiency levels. That is why all of the teachers are trying to keep up with the same pace outlined in the syllabuses without allocating adequate time for each 21st century learning and innovation skill. (R1)

I'm pleased with the management as they do not intervene the teachers' teaching styles or classroom practices. However, I strongly believe that time allocation is the main issue to be handled by the management in order to place all of the 4C skills. (R3)

4.4. Open-ended Response Part

Among the 26 participants, only 3 of them did not respond to the open-ended question which was item 52 “*Can you briefly explain a time when you incorporate learning and innovation skills into your lesson?*”. Participants’ responses centralized on warm-up sessions, and they reported that generally in the beginning of the lessons they utilize some creativity and critical thinking activities to activate the students’ brain and they counted brainstorming, picture description, talking about the daily issues or starting a lesson with a question or a quotation as some of their activities aiming promoting 4Cs.

In the extracts from the sample lessons, it is shown that most of the teachers utilize group work, pair work, project presentation, storytelling, visual aids, and writing an end to a short movie. Just very few of them presented detailed information about their classroom practices.

I benefit from divergent and convergent thinking for improving students' creativity skills. (PX)

I require students to associate the rules with the rules they learnt in their previous lessons. (PY)

Using online platforms for communication is better for me as I generally give feedback out of lesson hours and this helps me to save time in lesson. I benefit from Google docs. Programmes, and students' interactions have increased thanks to this way. (PZ)

Only one of the participants complained about time and syllabus and pointed them as the reason of being in short of conducting 4Cs in the lessons.

Although I am aware of the advantages of promoting 4Cs in the lessons and mastering students 4C skills, I do not have time for employing additive activities.

When both of the qualitative and quantitative results were analysed and combined, it was seen that respondents employ compatible practices with 21st century learning and innovation skills. However, it is necessary to emphasize that teachers employ the aforesaid practices in their classrooms without having precise pedagogical, conceptual, terminological, and cognitive information as stated earlier in this chapter. To sum up, teachers practices are aligned with the 21st century learning and innovation skills.

4.5. Overall Findings

Several themes related to research questions emerged from the qualitative data analysis. The themes revealed in the analyses of responses of the instructor may be used as a baseline for further research studies. The themes regard teachers' awareness about the broad topic of 21st century learning and innovation skills, teachers' motivation on promoting 21st century learning and innovation skills, their specific classroom practices, organizational support and curriculum issues.

Knowledge: Participants' knowledge about the broad topic of 21st century skills are as demonstrated in Table 4. The items coded for Knowledge, item number 4 "*I am aware of my students' developments of 21st century learning and innovations skills.*" had the lowest mean value (4.11) and item number 1 "*I have heard of 21st Century learning and innovation skills*" had the highest mean value (4.53). Although the items yielded lukewarm-to-positive mean values in terms of knowledge about 21st century skills, participants could not specify any formal frameworks to promote these skills in the classes. While they insisted on collaboration and communication as one of the most prominent skills among the 21st century learning and innovation skills, they did not explain a method for constructing cognitive skill and employing collaboration and communication effectively as pedagogical aids. Instructors participated in the survey did not specify any detailed methods for promoting 21st century learning and innovation skills in the 5 point Likert-scale type questions. As discussed before, although the items related to 'Knowledge' had yielded lukewarm-to-positive values in the 6 point Likert-scale type questions, the items yielded low mean values in the 5 point Likert-scale type questions. It is possible to indicate that teachers at the School of Foreign Languages lack of conceptual, factual, and cognitive knowledge about 21st century learning and innovation skills, though they believe in the importance of promoting and mastering 4Cs as their responsibility.

Motivation: The items 11 "*My students need these skills*" and 12 "*I am interested developing these skills in my students.*" had the highest mean scores (5.23 and 5.57 respectively) in the 6 point Likert-scale questionnaire. These mean scores imply that majority of the participants believe that students need 21st century learning and innovation skills, and most of the participants demonstrated that they are interested in enhancing these skills among the students. Although teachers' motivation mean values

were higher in the questionnaire, they clarified in the interviews that they do not have the time to promote each skill decently in the lessons cause of the syllabus.

Organization: In the first part of the 21st century learning and innovation skills Questionnaire, Organization category (It7, It8, It9, It10) had the lowest overall mean score (3.10) among KMO titles. On the one hand, interviewees reached a consensus in that organization is supportive of teachers as administrative staff do not intervene in the teachers' in-class practices. On the other hand, interviewees reported that organization is not presenting the required conditions for filling the teachers' Knowledge gap in terms of 21st Century 4Cs, and designing the curriculum regarding allocating place for promoting 21st century 4Cs in the syllabus.

Specific Classroom Practices: Teachers' classroom practices were inquired with the 5-point Likert-scale questions in detail in the 21st Century Learning and Innovation Skills Questionnaire, and the overall mean score of the items was 3.23 which is above the average, and can be accepted as lukewarm-to-positive indicator. However, teachers stated that although they are conducting 4Cs from time to time in their classes, they are not promoting them decently cause of the syllabus. The most verbalized activities for promoting learning and innovation skills in their responses are cited below in Table 8.

Table 8.

Specific Classroom Practices in Terms of 21st Century Learning and Innovation Skills

21st century learning and innovation skills	Classroom Practices
Communication	group work, pair work, discussion sessions, group projects, brainstorming
Collaboration	group work, pair work, discussion sessions, group projects,
Critical thinking	peer correction, picture description, storytelling, commenting on an article
Creativity	picture description, writing an end to an incomplete story, recording a video, writing an e-mail, personalizing the situations, role-play activities

Curriculum: The item related to curriculum in the Organization category of the questionnaire (item 9) “*The curriculum supports developing 21st Century Skills.*” yielded a low mean score (2.80). And also interviewees reported their mixed level of anticipation concerning the effect of the designation in the curricular issues. Interviewees complained about unequal breakdown of the activities in the syllabus. Majority of the respondents, explained their discomfort with the time allocation for promoting 4Cs, and they stated curricular issues as demotivating factor for them. They stated that shifts in the syllabus may bring more opportunities to think for a minute about promoting 21st century 4Cs properly.



CHAPTER V

5. DISCUSSION AND CONCLUSION

5.1. Introduction

The first target of the research study was to investigate teachers' knowledge about the 21st century learning and innovation skills. Secondly, teachers' motivation to promote 21st century learning and innovation skills in their classrooms, and the kind of activities the teachers are employing in the classes to promote them were examined. Finally, the rapport between teachers' classroom activities and 21st century learning and innovation skills was aimed to be discovered. Basically the research study was centralized on Knowledge, Motivation and Organization dimensions of the 21st century learning and innovation skills in the context of School of Foreign Languages at Firat University. In order to manage the study, mixed method descriptive case study was employed. At the first stage, 26 teachers participated in the quantitative part of the study and the collected data was analysed through SPSS programme. Considering qualitative part of the study, 5 teachers were interviewed in separate sessions to get their perspectives and classroom applications in terms of 21st century learning and innovation skills. In the present chapter, findings of the research study are going to be discussed, and further implications are going to be contemplated. After then, there will be a suggestion and a conclusion part relied on the findings.

Research questions:

1. To what extent are the Turkish teachers of English language familiar with 21st century learning and innovation skills?
2. To what extent are the Turkish teachers of English language motivated to promote 21st century learning and innovation skills?
3. What are the practices that these Turkish teachers of English implement to promote 21st century learning and innovation skills?
4. How are these practices aligned with 21st century skills?

5.2. Discussion of the Findings with Reference to Research Questions

- *“To what extent are the Turkish teachers of English language familiar with 21st century learning and innovation skills?”*

The first research question inquires about teachers' knowledge regarding 21st century learning and innovation skills. In a nutshell, teachers, in the concerned context, strongly believe that 21st century learning and innovation skills are all essential skills to grow up the students as individuals for life apart from only teaching linguistic skills, though they are deficient in precise conceptual, factual, and cognitive knowledge about them. However, a mismatch was discovered between quantitative and qualitative parts of the study in terms of teachers' knowledge. Although the mean score related to teachers' knowledge about 4Cs were high in the quantitative part of the study (4.38), respondents underlined that they are not rich in conceptual, factual, and terminological knowledge about the 4Cs in the interviews. The same mismatch was encountered in the study of McKenna (2015) where he concluded that teachers do not know what they do not know. This mismatch shows that the teachers have superficial knowledge about 21st century 4Cs in the concerned context.

In line with Li (2016), visibly in the context of the present study, participants demonstrated limited, albeit useful, knowledge about 21st century learning and innovation skills in terms of accepting the importance of stressing 4Cs in classes to improve students' cognitive skills. Related to this, one of the most important findings of the research was that students should get the education related to 21st century learning and innovation skills from the very early years of the education, which ties well with previous studies by Goethe, (2011), Jacobson-Lundeberg (2016), and Zivković (2016). They also underlined in their individual studies regarding learners' and teachers' preparedness in terms of 21st century 4Cs that learners should be exposed to the classes interwoven with 21st century 4Cs from the early grades. As also presented among the findings of the present research study, it is emphasized in the literature as well that cultivating competent graduates from higher education bodies is possible with promoting 4Cs as a basic part of the education from the very early years (Goethe, 2011; Jacobson-Lundeberg, 2016; Zivković, 2016).

According to Fandino (2013) and Brown (2004), language should not be treated as linguistic forms or rules, language is a living form and reshapes itself in accordance

with the conditions, and this idea was also insisted by the participants in the present study in the qualitative part. KIITOS21 (2018) asserted that communication is the objective of the language education, and in similar vein, participants claimed that language should be learned to contact with the people away from us, not for memorizing huge number of rules, and the target should be communication in language education (Eaton, 2010; Fandino, 2013).

- *“To what extent are the Turkish teachers of English language motivated to promote 21st century learning and innovation skills?”*

The second research question inquired about teachers' motivation and its link with the organization. Teachers identified curricular issues as organizational challenges, demotivating issues, and obstacles for promoting 21st century learning and innovation skills. Teachers reported that syllabus was challenging for them to promote each of the 4Cs equally in a blended way, and this was a demotivating factor for them. When it comes to the reasons of the challenges in the curriculum in terms of practising 21st century learning and innovation skills, albeit not investigated intentionally, teachers reported that the organization is restricting teachers to cover the cited units in the syllabus on time. That's why curriculum limits the time for practising 21st century 4Cs freely. However, findings showed that despite of the challenges in the organization, teachers were in favour of mastering students' 21st century learning and innovation skills through classroom activities. Apart from these, both qualitative and quantitative results pointed out that teachers were highly motivated to promote 4Cs in their classes. According to the quantitative results, Motivation had the highest mean score (4.89) in the questionnaire among KMO titles. Also it was reported in the interviews that students' passion to learn and improve their English Language was the motivation source of teachers to overcome all the challenges to allocate some time for promoting 4Cs. It is possible to deduce that teachers are motivated to promote 21st century learning and innovation skills. Teachers are prepared to practise 4Cs decently in their classes on condition that they have the organizational support in terms of designing the syllabuses accordingly and providing teachers with the professional development sessions in terms of filling the teachers' knowledge gap regarding 21st century 4Cs.

When the study is needed to be discussed from the organization dimension, similar to Archamboult's study in terms of promoting 4Cs, majority of the participants

agreed that 4Cs are not being promoted appropriately in the context of the study and participants underlined that the curriculum was not placing importance on 4Cs. Participants reported that they were not free to conduct the 4Cs related activities since they were required to keep up with the same pace of syllabus by the organization. In this light, while in the literature it is suggested by Kumaravadivelu (2004) that teachers may have the liberty of generating their theory of practice, in the context of the present study teachers are bounded with teach the book approach. As the same problem was encountered in the different studies, literature documented that curriculum should be integrated with 4Cs (OECD, 2009; Roterham & Willingham, 2009; Wagner; 2010; Soland et al., 2013). Given the fact that the required conditions are presented, teachers reported that they are feeling responsible to employ 21st century 4Cs in the classrooms.

Pacific Policy Research Centre (2010) reported that in the 21st century, success in language education is situated with being able to produce something in a team, discovering the hidden dimensions in a picture, reaching a practical solution for a problem, and sharing the knowledge with others as the globalized world is demanding this from individuals. In line with Pacific Policy Research Centre (2010) and Happ (2013), findings of the research study implied that teachers, education experts, and policy makers in the field of education are all liable to prepare the students for the demanding workplace life in the 21st century globalized world. As a result of Global market's expecting competent graduates from higher education organizations, and with the aim of meeting the demands of the globalized world, many scholars and some organizations (Happ, 2013; OECD, 2009; P21, 2011) reached a consensus that 21st century learning and innovation skills, which are communication, collaboration, creativity, and critical thinking should be placed in the curricula, and promoted by teachers.

- *“What are the practices that these Turkish teachers of English implement to promote 21st century learning and innovation skills?”*

Group work, pair work, discussion sessions, brainstorming, and storytelling activities were reported as the most commonly conducted activities to promote 21st century learning and innovation skills. There were not any mismatches between the questionnaire results and interview results in terms of teachers' classroom practices regarding 4Cs. In similar vein with the report of the OECD published in (2009), the present research study also discovered that while the importance of 21st century learning

and innovation skills is accepted by educational authorities, teachers are not free to promote them decently. As also shown in the PISA records, there are some problems with generating capable graduates in terms of 4Cs in Turkey. The findings of this research study also encountered the mentioned problems among teachers. Similar to the Chinese example studied by Li (2016) and Sang et al. (2018), it is possible to mention a mismatch in Turkey between the policy of the MoNE (2013) and teachers' actual classroom activities stemming from some practical reasons (Doğanay & Ünal, 2016; Petek, 2018). Although MoNE is in favour of mastering 4Cs at schools, school administrators and teachers are not allocating time or energy for promoting them appropriately in Turkey. Voogt et al. (2013) and Sang et al. (2018) argued that inadequate consolidation of 21st century 4Cs to curriculum together with teachers' weak, most probably inattentively, prepared activities results in poor employment of 21st century 4Cs.

The research study contributed the literature in terms of teachers' role as well. Most of the participants reflected that they feel as a scaffolder when collaborative tasks such as group work and pair work conducted properly, and this is consistent with literature in that 21st century skills are student-centred skills and teachers' role here is the facilitator or scaffolder (Dede, 2010; Fandino, 2013; Lam, 2015). The present research back up the literature, and at that point Lam (2015) warned teacher about students' abusing collaborative tasks with a specific term called '*social loafing*' and suggested teachers existence as scaffolder. In the interviews, teachers complained about social loafing and advised teachers' role here to be as facilitator or scaffolder to decrease the level of the problem.

- "*How are these practices aligned with 21st century skills?*".

The practices utilized by teachers in the classrooms, which were group work, pair work, storytelling, brainstorming, video recording, presenting a project, are all aligned with the 21st century learning and innovation skills as documented in the literature (Archambault, 2010; Wagner, 2010; Kuhn, 2015; Heinrich, 2016; P21, 2017; Petek, 2018; Roy, 2016; Rusdin, 2018). In the studies by Li (2016) and Eisner (2002), group work, pair work, storytelling, brainstorming, video recording, and presenting a project were not occupying a serious place, so they were not considered as compatible with 21st century 4Cs. Contrary to Li and Eisner, in the present study, teachers'

classroom practices, albeit insufficient, were compatible with the 21st century learning and innovation skills as imagination, playfulness, group works, and storytelling activities were occupying severe academic places among the classroom practices.

Despite the assertion in the literature that foreign language classes can hinder the students' advancement in terms of 4Cs (Manalo & Sheppard, 2016), and opposite to the Li's study (2011), participants in the present study are in the opinion that language classes are the exact place for promoting 21st century 4Cs. The research noticeably acknowledge that foreign language classes are the best facilitators to master 4Cs as they are presenting authentic platforms to reflect all the views in a harmony within language more than barely rules (Petek, 2018). Students have the opportunity to expand their language skills through communication and collaboration together with critical thinking and creativity as underlined by the participants in the research context as the practices were congruent with the 4Cs.

According to Archambault (2010), teachers should promote 21st century learning and innovation skills integrated with technological applications, and this point was also among the findings of the study. Some of the participants in the study indicated that they are saving time when they are benefitting from technological tools to give feedback, and they stated that this also give the opportunity of building communicative atmosphere among students (Archambault, 2010). To have the rapport with the century, technology should be adopted to the 4Cs practices.

5.3. Further Implications

The findings of the present research study have an important contribution to the literature in terms of lightening the gap among knowledge, motivation and organization. It was revealed in the present research study that plethora of qualifications are needed for proper 21st century learning and innovation skills, and desirably these qualifications should be interwoven with KMO. The study showed that teachers educated with 4Cs in accordance with KMO goes beyond teachers who have only one of the KMO titles since these qualifications constitute the picture together in a harmony, not separately.

The present research study showed that teachers were motivated to promote 21st century learning and innovation skills in their classrooms, though they did not have conceptual, theoretical or cognitive knowledge. Teachers were also limited in time to employ 4Cs as a result of hurrying for keeping up with the syllabus. When the

curricular issue is analysed in the state level, it is possible to mention a mismatch between the National Foreign Language Education policy and teachers' classroom practices. The findings have a significant implication for teacher education programmes not only for in-service teachers but also for pre-service teachers. Through presenting professional development sessions regarding tackling issues of promoting 21st century learning and innovation skills, teachers may flourish with the advantageous of armed with the latest trends. This also make the teachers gain knowledge about the 21st century 4Cs to canalize students' hidden skills in the right direction.

One another implication is that the concerned research study also implied that MoNE should take the required precautions to incorporate 21st century learning and innovation skills into programmes from the very early years. In addition, this research study may inspire teachers to update themselves for bringing various fresh activities into the classroom, and so that kind of innovations enable flexibility, freshness, and adaptability of the foreign language education together with well-being of the students (Hamilton, 1996). Apart from these, another impact of the study, albeit micro-level, is drawing attention to significance of the 4Cs at the institutional level in foreign language education (Alnofaie, 2013; Petek, 2018).

Teachers are lack of conceptual, factual and pedagogical knowledge about the 4Cs, and that hinders application of the practices related to 4Cs (Li, 2011; Li, 2016; Mok, 2009). As also advised in the literature (Archambault, 2010; Fandino, 2013; Li, 2016; OECD, 2009), in order to decrease the teachers' problem to a certain degree, findings suggest that teachers should have professional development courses to have detailed knowledge about 4Cs to promote them properly and tailor their requirements. Professional development may make the teachers gain a real vision about language education. In line with this implication, participants uttered similar intentions with P21 (2018). According to both of them, if teachers opt for students taking part in the daily conversations freely instead of getting high scores from exams, then it is possible to talk about a communication targeted language education, and at that time, success comes without much effort. Instead of waiting shifts in the state level, it is suggested to organize professional development sessions at the school level. And these sessions are advised to be continuous and up-to-date annually since the target here is to present lectures in accordance with the requirements of the century.

Apart from the aforesaid implications, it is also worth to put emphasis on the length of the time allocated for practising 4Cs decently. While it seems to be directly

relate with curriculum or syllabus, teachers' dwelling on 4Cs more intentionally and arranging time properly may also bring the success (Meiramova, 2017; Manalo & Sheppard, 2016; Marin & Halpern, 2011).

To sum up, the research revealed that promoting 4Cs in language classes is firmly the issue of the harmony of curriculum, class hour, and course books under the unity of KMO. So, this calls for immediate attention to teachers training sessions.

5.4. Suggestions to Future Studies

The present study has some suggestions in terms of investigating the reasons of teachers' insufficient knowledge and classroom practices, and organizations unsupportive practices in terms of 21st century learning and innovation skills. As the present study was a descriptive case study, the situation in the concerned context regarding teachers' knowledge, motivation, and classroom practices together with the organization was described, the reasons were not investigated deeply.

Further studies might dwell into the root reasons of the obstacles related to the insufficient knowledge and classroom practices of the teachers discovered in the present study. Apart from this, additional studies might be aimed to analyse the situation from students' side, and students' behaviours might be observed and documented while they are practising 4Cs.

At the first step, it is worth to consider to have a close eye on the year of initiating the education of 21st century 4Cs at schools. Secondly, It is also significant to analyse the link between being an autonomous learner and 21st century learner as they were among the findings of the study, and the literature is poor in that dimension. And the relationship between being autonomous learner and 21st century learner and adopting 21st century 4Cs to the education system in the earlier years are some of the blind dimensions. These dimensions are in need of being discovered to gain meaning with 21st century 4Cs education from various perspectives with various methods.

Furthermore, P21 (2018) underlines that curriculum should include authentic activities integrated with 4Cs as it is important for yielding positive outcomes from education. Similarly Luterbach and Brown stated in Delphi study that teachers' role weighs high in preparing adaptable authentic activities (as cited in Williams-Hamilton, 2013). Consequently, it is also suggested in the literature that teachers should adopt authentic ways while incorporating 4Cs into curriculum to teach and promote 4Cs

decently (Happ, 2013; Li, 2016; Petek, 2018), and the findings of the present study are consistent with this suggestions.

Methodologically, questionnaire (self-report instrument) and interviews were utilized to gather the data in the present research. However, observation and longitudinal study might be included into the list of data collection tools in the future research, since they can present an opportunity to investigate the real classroom activities of both teachers and students deeply. These tools may enable researchers to decide on potential existence of mismatch between teachers' perceptions and practices.

Given the fact that the number of the participants is low in the present research, the results are not representative of all the contexts. The present research study was a case study, and so the number of the participants was low. In order to analyse 21st century learning and innovation skills from various dimensions, it is suggested to conduct the research in big size contexts. And it is worth to examine the 21st century learning and innovation skills from learners' side.

5.5. Conclusion

This research study set out to seek about teachers' knowledge, motivation, organization, and their classroom practices together with adjustment of practices to the 21st century learning and innovation skills in EFL classrooms in Turkey, Firat University context. The aim was to contribute to the addressed research gap specified in the literature. Higher-order thinking skills, which are counted as 4Cs have significant place in education for both teachers and learners, and these thinking skills are needed to be placed in the curriculum. However, teachers' knowledge, beliefs, motivations, and focusing on practising these skills in the classrooms are also important.

In reflecting on the findings of the research study, a harmony needed to be set among KMO regarding filling EFL classes with incentive, logical, and authentic practices from the perspective of 21st century learning and innovation skills. It is wise to keep in mind that teachers' classroom practices are the indicators of their perceptions, and in the present study, teachers were trying to accommodate 4Cs into their limited, albeit fragmented, classroom time which showed that they were quite supportive and motivated to employ 4Cs. When the 4Cs take their place in the curriculum, the next step should be providing teachers with professional training sessions.

As for the starting time of promoting 4Cs at the education organizations, early years are advisable. At that point, it is favourable to recall the words from Frederick Douglass “it is easier to build strong children than to fix broken men” (as cited in McKenna, p.81). It is implied here to keep in mind the importance of teaching something from the very beginning, instead of fixing the broken parts later on repeatedly. Teaching English with 4Cs interwoven lessons in the early years of education present the opportunity of being 21st century competent learner to students. However, when students’ meet the 21st century 4Cs at the university level, it becomes a challenge for teachers to fix the students’ mislearnt practices regarding 21st century 4Cs.

For a final word, if teachers deprive of the conceptual or actual knowledge, then the reform related to curriculum stays at the theory level. However, students need these competences in practise even in the very early years of their education life. Otherwise it is challenging for them to meet 21st century 4Cs at higher education organizations.

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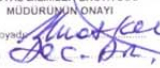




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7. APPENDICES

Appendix 1: Ethics Committee Permit Document

T.C. ÇAĞ ÜNİVERSİTESİ SOSYAL BİLİMLER ENSTİTÜSÜ TEZ / ARAŞTIRMA / ANKET / ÇALIŞMA İZİNİ / ETİK KURULU İZİNİ TALEP FORMU VE ONAY TUTANAK FORMU					
ÖĞRENCİ BİLGİLERİ					
T.C. NOSU	25762597902				
ADI VE SOYADI	Suheyla Demirkol Orak				
ÖĞRENCİ NO	20178009				
TEL. NO: LARI	5535918251				
E-MAIL ADRESLERİ	sydemirkol@gmail.com				
ANA BİLİM DALI	İngiliz Dil Eğitimi				
PROGRAM ADI	İngiliz Dil Eğitimi				
BİLİM DALININ ADI	İngiliz Dil Eğitimi				
HANGİ AŞAMADA OLDUĞU (DERS / TEZ)	Tez				
İSTEKTE BULUNDUĞU DÖNEME AİT DÖNEMLIK KAYDININ YAPILIP-YAPILMADIĞI	2018-2019 Güz Dönemi kaydını Yeniledim.				
ARAŞTIRMA/ANKET/ÇALIŞMA TALEBİ İLE İLGİLİ BİLGİLER					
TEZİN KONUSU	21st Century Learning and Innovation Skills				
TEZİN AMACI	The purpose of the present mixed method study is to examine how Turkish teachers of English at a state university in Turkey promote 21st century learning and innovation skills in language classrooms, whether teachers are familiar with the 21st century skills such as critical thinking, collaboration, creativity, communication and how these practices are aligned with 21st century skills.				
TEZİN TÜRKÇE ÖZETİ	21. yüzyıla girmemiz ile birlikte, birçok alanda olduğu gibi eğitim alanında da köklü değişimlere ihtiyaç duyulmuştur. Bu değişimleri birköşler, araştırmacılar, akademisyenler 21. yüzyıl becerileri genel başlığı altında farklı kategorilere ayırmışlardır. Söz konusu olan tez çalışmasında 21. yüzyıl becerilerinin bir alt dalı olan 'öğrenme ve geliştirme becerileri' olarak da bilinen kritik düşünme, yaratıcılık, değişim kurma ve grup çalışması becerileri, Fırat Üniversitesi Yabancı Diller Yüksekokulunda 27 öğretim görevlisinin katılımı ile vaka çalışması olarak incelenecektir. Çalışmanın amacı öğretim görevlilerinin 21. yüzyıl öğrenme ve geliştirme becerilerine olan farkındalıklarını, ve bu becerileri sınıf içi aktivitelerde ne kadar uyguladıklarını, nisel ve nicel çalışma metodlarını kullanarak incelemektir. Çalışmanın nicel bölümü için McKenna tarafından Güney Kaliforniya Üniversitesinde 2015 yılında geliştirilen 52 sorudan oluşan bir anket kullanılacaktır. Çalışmanın nisel bölümü ise toplam sayının % 10 u olacak şekildeki hoca sayısı ile rast gele bir seçim ile görüşme şeklinde yapılacaktır.				
ARAŞTIRMA YAPILACAK OLAN SEKTÖRLER / KURUMLARIN ADLARI	Fırat Üniversitesi, Yabancı Diller Yüksek Okulu				
İZİN ALINACAK OLAN KURUMA AİT BİLGİLER (KURUMUN ADI - ŞUBESİ / MÜDÜRLÜĞÜ - İLÇESİ)	Fırat Üniversitesi, Yabancı Diller Yüksek Okulu Müdürlüğü Merkez-Elazığ				
YAPILMAK İSTENEN ÇALIŞMANIN İZİN ALINMAK İSTENEN KURUMUN HANGİ İLÇELERİNDE / HANGİ KURUMUNA / HANGİ BÖLÜMÜNDE / HANGİ ALANINA / HANGİ KODLARDA / HANGİ ÖZELLİKLERE / NE UYGULANACAKI GİBİ AYRINTILI BİLGİLER	Çalışma Elazığ'daki Fırat Üniversitesi, Mühendislik Kampüsündeki, Yabancı Diller Yüksek Okulundaki, hazırlık programında ders vermekte olan 27 İngiliz dili eğitimi öğretim görevisine 21. yüzyıl becerileri genel başlığı altında farklı kategorilere ayırmışlardır. Söz konusu olan tez çalışmasında 21. yüzyıl becerilerinin bir alt dalı olan 'öğrenme ve geliştirme becerileri' olarak da bilinen kritik düşünme, yaratıcılık, değişim kurma ve grup çalışması becerileri, Fırat Üniversitesi Yabancı Diller Yüksekokulunda 27 öğretim görevlisinin katılımı ile vaka çalışması olarak incelenecektir. Çalışmanın amacı öğretim görevlilerinin 21. yüzyıl öğrenme ve geliştirme becerilerine olan farkındalıklarını, ve bu becerileri sınıf içi aktivitelerde ne kadar uyguladıklarını, nisel ve nicel çalışma metodlarını kullanarak incelemektir. Çalışmanın nicel bölümü için McKenna tarafından Güney Kaliforniya Üniversitesinde 2015 yılında geliştirilen 52 sorudan oluşan bir anket kullanılacaktır. Çalışmanın nisel bölümü ise toplam sayının % 10 u olacak şekildeki hoca sayısı ile rast gele bir seçim ile görüşme şeklinde yapılacaktır.				
UYGULANACAK OLAN ÇALIŞMAYA AİT ANKETLERİN ÖLÇEKLERİN BAŞLIKLARI / HANGİ ANKETLERİN - ÖLÇEKLERİN UYGULANACAKI	21st Century Learning and Innovation skills- 4Cs (communication, critical thinking, collaboration, creativity) Questionnaire'				
EKLER (ANKETLER, ÖLÇEKLER, FORMLAR ... GİBİ EVRAKLARIN İZİNLERİYLE BİRİKTE KAÇ ADET SAYFA OLUMLARINA AİT BİLGİLER İLE AYRINTILI YAZILACAKTIR)	1) 1 adet anket ismi: '21st Century Learning and Innovation skills- 4Cs (communication, critical thinking, collaboration, creativity) Questionnaire', toplamda 2 sayfa				
ÖĞRENCİNİN ADI - SOYADI: Suheyla Demirkol Orak	ÖĞRENCİNİN İMZASI: 	TARİH: 05/12/2018			
TEZ / ARAŞTIRMA/ANKET/ÇALIŞMA TALEBİ İLE İLGİLİ DEĞERLENDİRME SONUCU					
1. Seçilen konu Bilim ve İş Dünyasına katkı sağlayabilecektir.					
2. Anılan konu '21st Century Learning and Innovation skills- 4Cs (communication, critical thinking, collaboration, creativity)' tasarımları içermektedir.					
1. TEZ DANIŞMANININ ONAYI	2. TEZ DANIŞMANININ ONAYI (VARSA)	SOSYAL BİLİMLER ENSTİTÜSÜ MÜDÜRLÜĞÜNÜN ONAYI			
Adı - Soyadı: Jülide İnozü Unvanı : Prof. Dr. İmzası :  5/12/2018	Adı - Soyadı: Unvanı : İmzası : / 20	Adı - Soyadı:  Unvanı : Prof. Dr. İmzası : / 20			
A.B.D. BAŞKANININ ONAYI					
Adı - Soyadı: Şehnaz Şahinbaşkas Unvanı : Prof. Dr. İmzası :  05/12/2019					
ETİK KURULU ASIL ÜYELERİNE AİT BİLGİLER					
Adı - Soyadı: Mustafa BAŞARAN Unvanı : Prof. Dr. İmzası :  Etik Kurulu Jüri Başkanı - Asil Üye	Adı - Soyadı: Yücel ERTEKİN Unvanı : Prof. Dr. İmzası :  Etik Kurulu Jüri Asil Üyesi	Adı - Soyadı: Deniz AYRINTI GÜLER Unvanı : Prof. Dr. İmzası :  05/12/2018 Etik Kurulu Jüri Asil Üyesi	Adı - Soyadı: Ali Engin OBA Unvanı : Prof. Dr. İmzası : / 20	Adı - Soyadı: Mustafa Tevlik ODMAN Unvanı : Prof. Dr. İmzası : / 20	Adı - Soyadı: Unvanı : İmzası : / 20
Adı - Soyadı: Unvanı : İmzası : / 20					
OY BİRLİĞİ İLE <input checked="" type="checkbox"/>					
OY ÇOKLUĞU İLE <input checked="" type="checkbox"/>					
Çalışma yapılacak olan tez için uygulayacak olduğu Anketleri/ Formları/Ölçekleri Çağ Üniversitesi Etik Kurulu Asil Jüri Üyelerince incelenmiş olup 05/12/2018-15/01/2019 tarihleri arasında uygulamak üzere gerekli iznin verilmesi taraflarımızca uygundur.					
Etik Kurulu Jüri Yedek Üyesi					

AÇIKLAMA: BU FORM ÖĞRENCİLER TARAFINDAN HAZIRLANDIKTAN SONRA ENSTİTÜ MÜDÜRLÜĞÜNE ONAYLATILARAK ENSTİTÜ SEKRETERLİĞİNE TESLİM EDİLECEKTİR.

EKLER: Ek 1 (2) Sayfa '21st Century Learning and Innovation skills- 4Cs questionnaire (communication, critical thinking, collaboration, creativity)' Anketi (İngilizce)

SOBE - 1972

Appendix 2: 21st Century Learning and Innovation skills- 4Cs (communication, critical thinking, collaboration, creativity) Questionnaire

This questionnaire has been developed to measure teachers' awareness about 21st century skills learning and innovation skills-4Cs (critical thinking, communication, collaboration, creativity). From the statements listed below please *choose* the expressions which best represents your opinion.

Thank you for your participation.

Lecturer

Suheyly Demirkol Orak

- 1- To what extent do you agree or disagree with the following statements related to 21st century learning and innovation skills?

	Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree
1. I have heard of learning and innovation skills.						
2. I understand the concept of learning and innovation skills.						
3. I know how to develop learning and innovation skills in my students.						
4. I am aware of my students' development of learning and innovation skills.						
5. I can positively affect student achievement by developing learning and innovation skills.						
6. I am capable of delivering lessons that develop these skills in my students.						
7. I have received training on learning and innovation skills.						
8. I have the time and materials necessary to develop these skills.						
9. The curriculum supports developing learning and innovation skills.						
10. My organization places emphasis on these skills.						
11. My students need these skills.						
12. I am interested developing these skills in my students.						

2- To what extent do you currently address the following skills in your teaching practice?
(please keep in mind the reasons of your answers for part 3)

	Never	Seldom	Sometimes	Frequently	Always
Navigating digital sources					
Identifying common logical errors					
Generating conclusions					
Presenting and supporting claims					
Focus					
Divergent thinking					
Convergent thinking					
Problem-solving protocols					
Identifying basic relationships					
Creating graphic representations					
Drawing and sketching					
Generating mental images					
Conducting thought experiment					
Performing mental rehearsal					
Understanding interpretations					
Cultivating useful ways of thinking					
Avoiding negative ways of thinking					
Perspective taking					
Responsible interaction					
Controversy and conflict resolution					

Understanding interpretations												
Cultivating useful ways of thinking												
Avoiding negative ways of thinking												
Perspective taking												
Responsible interaction												
Controversy and conflict resolution												

If you have chosen “Other” as the reason you seldom/never develop the following skill(s), please add any additional information into the box below to help others understand the obstacles involved for developing the skills listed.

Can you briefly explain a time when you incorporate learning and innovation skills into your lesson?

Appendix 3: Interview Questions

1. How knowledgeable are you with the term, 21st Century Skills? What are they?
2. What skills should language teachers emphasize to prepare students for the 21st Century?
3. Do you think that teaching 21st century skills is a kind of responsibility of teachers? If yes, how do you deal with it? Why? Why not?
4. What are some of your classroom practices related to 21st century learning and innovation skills?
 - 4.1. How do you instruct students in developing critical thinking, and creativity skills?
 - 4.2. How do you instruct students in developing communication and collaborative learning skills?
5. What supports do you need to promote 21st Century Skills?

Appendix 4: Görüşme Soruları

1. 21. yüzyıl becerileri ile ilgili ne biliyorsunuz? Bu beceriler nelerdir?
2. Öğrencileri 21. Yüzyıl'a hazırlamak için öğretmenler sınıfta hangi 21.yüzyıl becerilerini çoğunlukla uygulamalıdır?
3. 21. Yüzyıl becerilerini sınıfta vurgulamak öğretmenlerin sorumluluğu mudur? Eğer öyleyse neden? Eğer öyle değilse neden değil?
4. Sınıfta uyguladığınız 21.yüzyıl öğrenme ve yenilikçi becerilerine yönelik aktiviteler nelerdir?
- 4.1. Öğrencilerin kritik düşünme ve yaratıcılık becerilerini geliştirmeye yönelik hangi aktiviteleri sınıfta uygularsınız?
- 4.2. Öğrencilerin iletişim ve işbirliği becerilerini geliştirmeye yönelik hangi aktiviteleri sınıfta uygularsınız?
5. 21. Yüzyıl becerilerini doğru şekilde vurgulamak için ne tür desteğe ihtiyaç duyarsınız?

Appendix 5: Approval from Çağ University



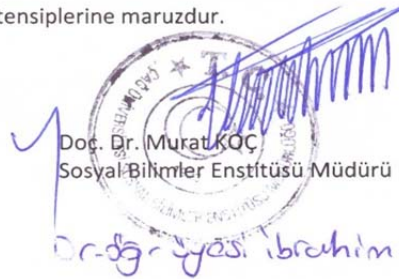
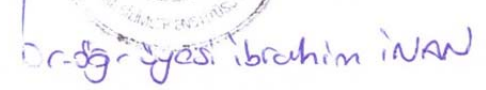
SAYI : 23867972/ 1955
KONU: Tez Anket İzini Hakkında

05.12.2018

T.C
FIRAT ÜNİVERSİTESİ REKTÖRLÜK MAKAMINA
YABANCI DİLLER YÜKSEK OKULU MÜDÜRLÜĞÜNE

ELAZIĞ

1. İngiliz Dili Eğitimi Tezli Yüksek Lisans Programında kayıtlı olup, programdaki kaydı halen devam etmekte olan ve tez aşamasına geçmiş olan 201780019 numaralı **Suheyla DEMİRKOL ORAK**, "21st Century Learning and Innovation Skills" konulu tez çalışmasını Çukurova Üniversitesi öğretim üyesi olan **Prof. Dr. Jülide İNÖZÜ** danışmanlığında halen yürütülmektedir.
 2. Adı geçen öğrencinin bu tez çalışması kapsamında Üniversiteniz Yabancı Diller Yüksek Okulu Müdürlüğü Hazırlık Programı bünyesinde ders vermekte olan 27 İngiliz Dili Eğitimi Öğretim Görevlisini kapsamak üzere kopyası Ek'te sunulan anket uygulamasının yapılması planlanmıştır.
 3. Bu kapsamda, adı geçen öğrencinin bu tez çalışması ile ilgili Ek'lerde sunulan anketi uygulayabilmesi için gerekli iznin verilmesi makamlarının tensiplerine maruzdur.
- Arz ederim.


Doç. Dr. Murat KOÇ
Sosyal Bilimler Enstitüsü Müdürü


EKLERİ: 2 (iki) Sayfa Anket Formu Listesi.

Appendix 6: Approval from Fırat University

Evrak Tarih ve Sayısı: 10/12/2018-298673



T.C.
FIRAT ÜNİVERSİTESİ REKTÖRLÜĞÜ



Yabancı Diller Yüksekokulu Müdürlüğü

Sayı :39345886/020/
Konu :Anket Çalışması(Süheyla DEMİRKOL ORAK)

Sayın: Öğr.Gör. Suheyla DEMİRKOL ORAK

07/12/2018 tarihli dilekçenizde bahsi geçen, Yüksekokulumuzda 05/12/2018-15/01/2019 tarihleri arasında hazırlık programı İngilizce öğretmenlerine anket uygulamaya talebiniz Müdürlüğümüzce uygun görülmüştür.
Bilgilerinizi rica ederim.

e-İmzalıdır.
Prof. Dr. İhsan DAĞTEKİN
Yüksekokul Müdürü

EK :
Dilekçe ve Ekleri

T.C.
Frat Üniversitesi
Yabancı Diller Yüksek Okulu
Müdürlüğüne.

Yabancı Diller Yüksek Okulunda 05.12.2018 -
13.01.2019 tarihleri arasında hazırlık programı
İngilizce öğretmenlerine anket uygulamak istiyorum.
Tez konum '21st century learning and innovation skills'
Cag Üniversitesi'nin verdiği Etik kurul kararı ekte
bilgileriniz sunulmuştur. Gerçeğin yapılmasını
bilgileriniz arz ederim.

Öğret-görevlisi: Süheyra Demirkol Drake



07.12.2018

Ekl: (1) Tez Anket izni
(2) Etik kurul formu.

Appendix 7: Informed Consent Protocol

You have been invited to take part in a research study. Please take as much time as you need to read the consent form. This research study is being conducted by a graduate student in order to complete a research study for the Master Theses at Çağ University.

PURPOSE OF THE STUDY

This study focuses on the teaching practices, knowledge, motivation and organization of teachers who serve at the School of Foreign Languages. I hope to learn about current practices, knowledge and motivation of teachers toward particular teaching practices, and the challenges faced in developing 21st Century Skills among teachers. You are invited as a possible participant because of your current teaching assignment.

CONFIDENTIALITY

All identifying information will remain strictly confidential. Insights gathered by you and other participants will be used in writing a needs assessment for your organization in order to guide the creation and delivery of supports for the development of 21st Century Skills among teachers. Though direct quotes from you may be used in the paper, your name and other identifying information will be kept anonymous; neither you nor your work assignment will be made public.

AUDIO RECORDING

It is preferable that the interview be recorded to ensure the accuracy of the answers provided; however, you may choose not to be recorded, in which case the interviewer will rely solely on note-taking to preserve the content of your discussion. Once the report is completed, the audio recordings will be destroyed.

By signing below I acknowledge that I have read and understand the above information. I am aware that I can discontinue my participation in the study at any time.

Circle one: Audio recording is permitted / is not permitted

Interviewee: _____

Date: _____

Interviewer: _____

Date: _____

8. CURRICULUM VITAE

Suheyly Demirkol Orak was born on 1st May 1989. She completed primary school education in Diyarbakır and went on her high school education at Nevzat Ayaz Anatolian High School. She completed her B.A. degree in department of English Language Teaching in Dicle University in 2011. After graduation, she started working as an English Lecturer at the School of Foreign Languages in Fırat University. She started M.A. at Çağ University in department of English Foreign Language and Education and completed in June 2019. She is currently working at the School of Foreign Languages in Fırat University.

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