

ILGIN MİRİCİ

AN INVESTIGATION OF THE 21st CENTURY COMPETENCIES OF
PROSPECTIVE EFL TEACHERS IN TÜRKİYE

ILGIN MİRİCİ

A THESIS SUBMITTED
FOR
THE DEGREE OF MASTER OF ARTS
IN
TEACHING ENGLISH AS A FOREIGN LANGUAGE

İHSAN DOĞRAMACI BILKENT UNIVERSITY
ANKARA

AUGUST 2023

2023

An Investigation of the 21st Century Competencies of
Prospective EFL Teachers in Türkiye

The Graduate School of Education
of
İhsan Doğramacı Bilkent University

by

İlgin Mirici

In Partial Fulfilment of the Requirements for the Degree of

Master of Arts

in

Teaching English as a Foreign Language

The Department of English Language Teaching

Ankara

August 2023

İHSAN DOĞRAMACI BILKENT UNIVERSITY

GRADUATE SCHOOL OF EDUCATION

An Investigation of the 21st Century Competencies of Prospective EFL Teachers in

Türkiye

Ilgın Mirici

July 2023

I certify that I have read this thesis and have found that it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Arts in Teaching English as a Foreign Language.

Asst. Prof. Dr. Tijen Akşit (Advisor)

I certify that I have read this thesis and have found that it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Arts in Teaching English as a Foreign Language.

Assoc. Prof. Dr. Dilara Demirbulak, Yeditepe University (Examining Committee Member)

I certify that I have read this thesis and have found that it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Arts in Teaching English as a Foreign Language.

Assoc. Prof. Dr. Perihan Savaş, METU (Examining Committee Member)

Approval of the Graduate School of Education

Prof. Dr. Orhan Arıkan (Director)

ABSTRACT

AN INVESTIGATION OF THE 21st CENTURY COMPETENCIES OF PROSPECTIVE EFL TEACHERS IN TÜRKİYE

İlgin Mirici

MA in Teaching English as a Foreign Language

Advisor: Asst. Prof. Dr. Tijen Akşit

August 2023

This study investigated the competencies on 21st century skills of prospective EFL teachers in Türkiye and ELT department academics' opinions about their students' 21st century skills competencies. In this respect, it explored the opinions of the 3rd and 4th grade prospective EFL teachers studying at a state and a foundation university in Ankara, Turkey. To this end, 102 prospective EFL teachers and 14 ELT department academics filled in a questionnaire to take part in the study. Quantitative data was obtained from the questionnaires, and qualitative data was obtained via semi-structured interviews with a sample of 15 prospective EFL teachers and 11 ELT department academics. The results of the study have revealed that both state and foundation university prospective EFL teachers feel competent in using 21st century skills in their classes, with a focus on a range of skills including communication, collaboration, and the use of technology. Likewise, ELT department academics perceive their students' competencies in using the 21st century skills such as communication and technology use, with some slight differences in specific areas.

Keywords: 21st century skills, prospective EFL teachers' competencies, academics' perceptions

ÖZET

Türkiye'de Öğretmen Adaylarının 21. Yüzyıl Becerilerinin İncelenmesi

Ilgın Mirici

Yabancı Dil Olarak İngilizce Öğretimi Yüksek Lisans Programı

Tez Danışmanı: Dr. Öğr. Üyesi Tijen Akşit

Ağustos 2023

Bu çalışmada, Türkiye'deki İngilizce öğretmen adaylarının 21. yüzyıl becerilerine ilişkin yeterlikleri ve İngilizce Öğretmenliği bölümü akademisyenlerinin öğrencilerinin 21. yüzyıl becerileri yeterlikleri hakkındaki görüşleri incelenmiştir. Bu doğrultuda, Ankara, Türkiye'deki bir devlet üniversitesi ile bir vakıf üniversitesinde öğrenim gören 3. ve 4. sınıf potansiyel İngilizce öğretmenlerinin görüşleri araştırıldı. Bu amaçla, 102 İngilizce öğretmeni aday ve 14 İngilizce Öğretmenliği bölümü akademisyeni, çalışmaya katılmak üzere bir anket doldurdu. Nicel veriler anketler aracılığıyla toplanmıştır. Nitel veriler, 15 İngilizce öğretmen aday ve 11 İngilizce Öğretmenliği Ana Bilim Dalında görev yapan akademisyenden oluşan gönüllü katılımcılarla gerçekleştirilen yarı yapılandırılmış görüşmeler yoluyla elde edildi. Çalışmanın sonuçları hem devlet hem de özel üniversite İngilizce öğretmeni adaylarının, iletişim, iş birliği ve teknoloji kullanımı gibi bir dizi beceriye odaklanarak sınıflarında 21. yüzyıl becerilerini kullanma konusunda kendilerini yeterli hissettiklerini ortaya koymuştur. Aynı şekilde, İngiliz Dili Eğitimi Ana Bilim Dalı akademisyenlerinin, belirli alanlarda, bazı küçük farklılıklarla birlikte, iletişim ve teknoloji kullanımı gibi çeşitli becerilerde kendilerinin ve öğrencilerinin yeterlikleri konusunda güven duyduğu görülmektedir.

Anahtar kelimeler: 21. yüzyıl becerileri, İngilizce öğretmen adaylarının yeterlilikleri, akademisyenlerin algıları

ACKNOWLEDGEMENTS

I would like to express my deepest gratitude to my advisor, Asst. Prof. Dr. Tijen Akşit, for her invaluable guidance, unwavering support, and mentorship throughout this thesis journey. Her expertise, constructive feedback, and encouragement have been instrumental in shaping this research and enhancing its quality. I am truly grateful for her dedication and patience.

I also owe special thanks to Prof. Dr. Paşa Tevfik Cephe, who was a great help to collect data and to implement the piloting phase of the study at the ELT department of Gazi University, where he is the chair of the department.

I would also like to extend my heartfelt appreciation to my parents. I am incredibly grateful for my dad, who played a significant role in my thesis journey. His support and involvement were truly remarkable. I could feel his excitement and stress right alongside mine as we eagerly awaited the completion of this important milestone. I am also very grateful for my mom, whose patience and unwavering trust in me have been a guiding light. Whenever I faced difficulties or felt overwhelmed throughout my thesis journey, she provided a comforting presence and a listening ear. Their unwavering support and sacrifices have been the foundation of my academic achievements. I am forever grateful for their unconditional love and support.

I want to extend a heartfelt thanks to my best friend Arda. Throughout this thesis journey, he has been providing unwavering support and helping me navigate through the challenges. Whenever I felt lost or overwhelmed, he was there to lift me up and get me back on track. I am incredibly grateful for his constant encouragement and belief in me.

Additionally, I would like to thank to my dear friends. Their encouragement, positive energy, and willingness to lend a helping hand have been invaluable. I am grateful for their presence in my life and their unwavering support throughout this journey.

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CHAPTER 1: INTRODUCTION

Introduction

This chapter focuses on the issues related to 21st century skills and foreign language teacher education in Türkiye. In addition, problem Statement, aim, research questions and the significance of the study and the definitions of key terms are presented.

Background

The twenty-first century can be best described as the domination of all kinds of technologies. The rapid advancement of technological devices and technology itself have made digital literacies essential for people in order to keep up with this information age (Black, 2009). Globalization, too, has reshaped the organization and profession of teaching across the world, by making teaching more knowledge-based, mobile-based and collaborative (Chu et al., 2016). Meanwhile, machines have increasingly taken the place of the human workforce in tasks that involve routine cognitive and manual input. Consequently, employers are looking for people who have analytical thinking, digital, and sophisticated communication skills (Levy & Murnane, 2012). Since middle-class achievement is no longer possible for students who work in physical labor or do regular tasks that can be done by machines, regardless of one's level of education or experience as a technician or an expert, one's success lies in being able to effectively communicate and share information, as well as adapting and innovating in the face of changing circumstances, as well as utilizing technology to create new knowledge and expand human capacity (Binkley et al., 2011). Therefore, 21st century skills are essential to survive in today's competitive system in society.

The research suggests that students of today will need a higher level of education and a different set of abilities than students of earlier generations in order to succeed in the twenty-first century workplace (Burrus et al., 2017). The review of relevant papers demonstrates that 21st century skills are a broad notion that can refer to a variety of cognitive processes, including; creativity, problem solving, decision making, self-awareness, critical thinking, and obtaining and analyzing information (Voogt & Roblin 2010). Hence, learners in the twenty-first century are digital natives and self-directed thinkers (Biever, 2008). All these essential skills comply with 21st century skills.

Just like in every field, in the education systems, these skills need to be focused on. To this end, this fact should also be borne in mind (Klimas, 2020) in teacher education. From an instructional and disciplinary standpoint, no one appears to be advocating for the elimination of established curricular emphases (e.g. reading, writing, mathematics, history, and science), but there is a desire for brushing them up in a way that will cover the new necessities of this century with an interdisciplinary embrace. Addressing the needs of school, work, and commerce in the twenty-first century education of today's world requires extra layers of communication skills, technology savvy, a global perspective, collaborative practices, digital abilities, and more imaginative applications (Geisinger, 2016). As educators, teachers would do well to create opportunities for their students to manage time effectively, to produce independently and self-direct themselves for the sake of initiative and self-directed skills (Kivunja, 2014). Especially, Turkish teachers exert great effort to integrate technology as a learning tool in their classroom instructions (Otlu, 2020). Where and when to acquire these skills is usually aligned with the education provided in the context of schooling. Thus, providing a high-quality education is crucial to the

improvement and benefits of the society (Kaufman, 2013), and it is a must for the learners to possess the necessary knowledge and skills to adapt themselves to the changing world (Bedir, 2019a), and these skills and knowledge are already called as 21st century skills.

Today, many course books are designed in a way that is empowering 21st century skills, and what teachers should do is to adapt themselves to meet the requirements of the century and enrich their lessons with an effort to create 21st century classrooms. To be more specific, there are ample resources which provide teachers with practical implications in the classroom (Erdoğan, 2019; Kaufman, 2013), and they should keep up with the age and benefit from these variety of resources.

The primary goal of teacher education must be to help pre-service teachers develop a wide range of educational practices that allow them to adapt their teaching and learning tactics to meet the needs of their students in a variety of contexts (Bedir, 2019b). However, many pre-service teacher preparation programs emphasize primarily general skills, making it difficult for students to bridge the gap between theory and practice in their actual classroom teaching. One of the relevant existing literatures about 21st century skills and EFL teachers' beliefs and knowledge about those skills found that the level of information regarding 21st century skills and their significance in EFL instruction was quite restricted (Klimas, 2020). In the English as a Foreign Language (EFL) teacher education process, developing 21st century skills in the prospective teachers of English will be very helpful to transfer these skills to their future students, the future generations. Rather than just teaching the basics of the language, it is argued that Foreign Language classes should provide students with

a variety of abilities that will help them in their future endeavors beyond the classroom (Klimas, 2020).

In order to define what is involved within 21st century skills, educators have put great effort into clarifying the framework. Most of the definitions center around the fact that 21st century skills highlight what students are able to do with knowledge and how they apply that certain knowledge in authentic contexts. Instead of attaining units of knowledge, the essence of 21st century skills underlie the role of strong communication and collaboration skills, competency at technology, innovative and creative thinking skills along with problem solving skills (Larson & Miller, 2011; Silva, 2009). Therefore, they can contribute solutions or innovations that are necessary to solve the global challenges that call for the cultivation of greater human agency, creativity, and an inquiry mindset.

As the last remark, 21st century skills are “what students can do with knowledge and how they apply what they learn in authentic contexts” (Larson & Miller, 2011, p.121); teachers should be aware of the necessary skills for this century, so in-service teacher training programs and pre-service EFL teacher education are important (Bedir, 2019c), and teachers should prepare their students for their future lives by equipping them with the 21st century skills.

Problem

As students' requirements change and expand, foreign language education (FL) in the 21st century must adapt to meet them. Due to globalization and technology, the way we learn and teach languages, as well as communicate, has changed dramatically. That is why it is no longer necessary to teach grammar, memorization, or learning by rote in today's language classes, but rather to teach students how to use language and cultural knowledge as a tool for communication

and global connection (Klimas, 2020). However, in order for students to gain 21st century skills, teachers need to be aware of these skills and have these skills at the same time, because teachers are not only transferring knowledge, but they are also role models for their students. It can provide better learning if they are not only teaching these skills, but by showing that they are individuals who have them and put them into practice and set an example for their students. In addition, a teacher who does not have 21st century skills may find it difficult to transfer these skills to new generations. Hence, as Şahin and Han State there is lack of research about EFL teachers' attitudes and awareness of 21st century abilities in Türkiye (Şahin & Han, 2020).

According to Otlu, along with being the fund of knowledge, teachers can be thought of as agents and facilitators for bringing 21st century skills into the classroom. There are, however, a number of problems that may hinder teachers' efforts to incorporate 21st century skills into their classroom instruction. For each teacher, the settings, underlying knowledge, and possibilities for 21st century skill acquisition are unique. Researchers or educators must look into the factors that influence teachers' 21st -century skill sets as well as their perceptions of what those skills are to better prepare them for the classrooms of the future (Otlu, 2020).

Purpose

The purpose of this study is to investigate the competencies on 21st century skills of prospective EFL teachers in Türkiye and ELT department academics' opinions about their students' 21st century skills competencies. The reason why this study is conducted is because it is essential for educators to learn and be aware of the importance of 21st century skills and learn these skills in order to set an example and transfer these skills to students who will form the future generation. In addition, this

study is expected to contribute to the literature on obtaining more information on this subject, since this field is open to development in Türkiye.

Research Questions

The following research questions are addressed to explain the main points of the research:

1. How do prospective teachers of English as a foreign language perceive their 21st century skills?
2. How do ELT department academics perceive their students' 21st century skills?
3. Do prospective EFL teachers' perceived 21st century skills competencies differ according to the type of university they attend? (State or Foundation university)
4. Do ELT department academics' perceived 21st century skills competencies of their students differ according to the type of the university they teach at? (State or Foundation university)
5. Is there a difference between how the 21st century skills competencies of prospective EFL teachers are perceived by themselves and by the academics who teach them?

Significance

This study is significant in terms of EFL teacher education because the study will increase awareness about the 21st century skills and their relation to the program offered in ELT departments. As a consequence, both student teachers of English and the academics in the ELT departments will be informed about the 21st century skills and develop these skills in the prospective teachers of English. Hence, according to the principles of the Council of Higher Education Organization of Accreditation

(YÖKAK) (2022), “The Quality Assurance System” in higher education is an important tool used to increase international competitiveness, to train qualified individuals equipped with 21st century skills, and to ensure that the understanding of continuous improvement is internalized in higher education institutions in Türkiye. In line with this understanding, this research topic can support the aim of the YÖKAK by determining the adequacy of the 21st century skills of the target audience and the deficiency in this subject with the data obtained at the end of the study.

The aim is to explore the 21st century skills of prospective EFL teachers in Türkiye and ELT department academics’ opinions about their students’ 21st century skills. As a result of the gap in the literature about prospective teachers’ perceptions of their 21st century skills and the lack of studies in the Turkish context on this subject, this study will fill the gap in the literature. It's evident that teachers need to be actively involved in integrating 21st century skills into the curriculum in order to keep up with the ever-increasing demands of today's world. According to the findings of the relevant literature, today's students will require a more advanced education and a unique set of skills to compete in the current workforce (Burrus et al., 2017). Despite the widespread recognition of the need to equip students with the skills they'll need to succeed in the modern world, incorporating 21st century skills into the classroom remains one of the most uncommon techniques used by schools and universities. It appears that the traditional methods of instruction are becoming obsolete due to their inability to meet the needs of modern students and adapt to the increasing competition on a worldwide scale. As a result, most of all, we need to shift away from the implemented methods of education of the past and toward those that take use of technological advancements and emphasize the development of 21st century skills (Chineze et al., 2016).

Therefore, this topic is quite significant to consider as a research subject. The results of this study will be beneficial for both prospective EFL teachers and ELT department academics. It will enable academics to become more aware of these skills of their students and to have information about how they can change and improve the course arrangements aimed at acquiring 21st century skills. It will also help prospective EFL teachers to be well aware of the necessity of developing 21st century skills and to increase their volunteering to receive trainings to improve these skills before graduating from their departments.

Definition of Key Terms

To understand the significance of the 21st century skills, it is wise to dwell on some basic terminology. Therefore, the proposed key terms will contribute to the reader's understanding of the overall comprehension of the study.

21st century skills: According to the research, there isn't a single, agreed-upon definition of "21st century Skills" everywhere in the world. The term "21st century Skills" encompasses a wide range of abilities such as critical thinking, creativity, technology skills, collaboration, communication etc. (Joynes & Amonoo-Kuofi, 2019).

Competence: Competence generally refers to the possession of knowledge, skills, abilities, and attributes that enable effective performance in a particular domain or context. Competence is often seen as a multidimensional construct that encompasses both cognitive and practical aspects (Spencer & Spencer, 1993).

EFL: Abbreviation for English as a Foreign Language: the teaching of English to students whose first language is not English (Cambridge Dictionary, 2021).

FL: FL stands for Foreign Language. IGI Global defines it as a language which is different from the native language of a speaker/learner (IGI Global, 2021).

ELT: Abbreviation for English Language Teaching: the teaching of English to speakers of other languages (Cambridge Dictionary, 2021).

Prospective teachers: Teacher candidates who were enrolled in a teacher education program and in their final year of education (IGI Global, 2021).

Self-perception: n. a person's view of his or her self or of any of the mental or physical attributes that constitute the self. Such a view may involve genuine self-knowledge or varying degrees of distortion (American Psychology Association, 2021).

Skill: Proficiency in performing a task or undertaking a job effectively, particularly due to acquired experience and practice (Cambridge Dictionary, 2021).

CHAPTER 2: REVIEW OF RELATED LITERATURE

Introduction

In order to work on the topic in detail we need to be familiar with the previously focused studies. Only this way a better understanding of subject matter can be realized and readers become much more involved in the topic. Thus, this chapter focuses on the relevant review of literature about definition of 21st century skills, importance of 21st century skills, components of 21st century skills, representation of a framework for 21st century skills, teaching competences and its relation to 21st century skills and lastly empirical studies conducted similar to this study.

21st century Skills

21st century skills are in high demand because of the need for new skills. The transformation in the sorts of jobs that society requires implies that today's youth must be prepared for vocations that do not yet exist. It is essential for today's youth to go beyond the basics of conventional knowledge and abilities in order to be successful in a fast-changing world (Bedir, 2019c). There is no one answer to the question of why education has to focus on skills relevant to the 21st century. However, there are some explanations most frequently offered such as the world's continuous change, and students' skills that are learnt in school must remain relevant. Hence, for academic and professional achievement in the twenty-first century, it is crucial to develop skills such as critical thinking, creativity, and problem solving. The environment of the 21st century is a digital one that makes use of technology to enhance learning (Nissim et al., 2016). Students need to be competent in the use of technology because of its pervasive presence in modern society. Therefore, students

who develop their 21st century skills will have a better chance of achieving academic and personal success since strong 21st century skills are in high demand among employers. Workers now have access to more resources and greater discretion in how they are used. As a tradeoff, employees are relied upon to act independently and take charge of their own workloads otherwise they are not welcomed anymore. These are just a few of the most frequently mentioned examples of why it's crucial to have 21st century skills. Evidently, today's students need to be equipped with these skills if they are to thrive in the workforce of tomorrow, thus it's on to teachers to make sure they are being taught (Heinrichs, 2016).

One of the key objectives of the 21st century is the preparation of well-equipped, competitive persons with a high awareness (Bedir, 2019c). It is no longer appropriate to consider them only receptacles for knowledge; rather, they should be considered an active participant in the process of knowledge construction (Nissim et al. 2016). As a result, students are expected to be more actively engaged in their own learning process, which necessitates a shift in the conventional roles of students and teachers (Joke & Roblin, 2010). Proponents and critics agree that a combination of knowledge and skills is necessary. When it comes to education, having a global perspective means regularly updating the curriculum to account for new competencies, individualized learning, the inquiry method, problem-solving, student-centered instruction, and the use of the internet and other electronic resources to enhance learning and teaching (Peretomode & Ikoya, 2010). In addition, Bellanca and Brandt have first-hand experience that students who are taught effectively are using their acquired skills to improve their understanding (Bellanca and Brandt, 2010).

Components of 21st century Skills

Studies show that 21st century abilities encompass a wide range of cognitive processes, including creativity, problem solving, decision making, awareness of one's own identity and critical thinking as well as obtaining and analyzing information (Voogt & Roblin 2010). All of these necessary skills are in line with the requirements of the 21st century skills. The basic skills and knowledge demand of the past must be replaced with new standards for what students should be able to perform. As a means of meeting this challenge, schools must be altered in ways that allow students to develop the complex thinking skills, flexible problem-solving abilities, and collaboration and communication abilities that they will need to be successful in both work and life after graduation (Binkley et al., 2011).

Skills in learning and innovation are what differentiate students who are equipped for the increasingly complicated contexts of life and work in today's world from those who do not have these skills (Partnership for 21st century Skills, 2009a). Critical thinking and problem solving are widely regarded as the new fundamentals of 21st century learning, according to numerous experts. Instruction and learning must involve a commitment to a knowledge core, strong expectations on thinking, and the active application of information in every topic and at every grade level (Trilling & Fadel, 2009). The ability to make a "commitment to a knowledge core" is essential for critical thinking. Learning is not just about memorizing facts and figures; it's also about having the ability to ask meaningful questions that draw out a variety of viewpoints and ultimately lead to more useful solutions. It is critical for students to be able to synthesize knowledge and draw connections between different ideas (Trilling & Fadel, 2009). It is possible to develop critical thinking and problem-solving abilities by participation in a wide range of inquiry and problem-

solving activities and programs. The most effective way to build these abilities is through meaningful learning activities that are motivated by interesting questions and problems (Trilling & Fadel, 2009).

21st century Skills Frameworks

With the emergence of 21st century skills arose the need for a variety of frameworks to direct education and change practices in the digital age. There are several existing frameworks for "21st century Skills" such as; the Partnership for 21st century Skills (P21) (2006), the Metiri Group and NCREL (EnGauge) (2003), the American Association of Colleges and Universities (AACU) (2007), and the Organization for Economic Cooperation and Development (OECD) (21st century skills and competences for new millennium learners) (2005) (Dede, 2010). The naming and grouping of the skills necessary for the 21st century may differ slightly from one framework to another, but the fundamental ideas behind these skills remain consistent. It can be said that there is a significant amount of interest from society in the skills necessary for the 21st century (Voogt & Roblin, 2012).

"Visual literacy" is an additional component that is related to "information literacy" in the EnGauge Framework. The ability to "manage complexity" is one of the fundamental competencies, along with "curiosity" and "risk taking. The concepts of "prioritizing, planning, and managing for results," as well as "multicultural literacy," are emphasized in this framework. This shorter list places less of an emphasis than P21 does on the subjects that overlap with the curriculum of the 20th century, with the exception of the "Effective Communication" category (Dede, 2010). Both conflict management and the effective use of language, symbols, and texts are highlighted as core skills by the Organization for Economic Cooperation and Development (OECD). Similar to the Metiri/NCREL skillset, this framework

places less emphasis on curricular repetitions from the previous century than P21 does (Dede, 2010).

Every single one of the frameworks relies heavily on ICT. The primary areas where frameworks diverge are in the way the competencies are categorized and grouped, as well as the priority given to those groups. The primary point of disagreement revolves around the competencies that are associated with the core subjects, and more specifically, the question of whether or not to take into account these competencies when identifying those associated with the 21st century (Voogt & Roblin, 2012). All frameworks include, with varying degrees of specificity, Statements about teachers' essential role in implementing 21st century skills and the consequent requirement for teacher professional development.

Partnership for 21st century Skills (P21) Framework

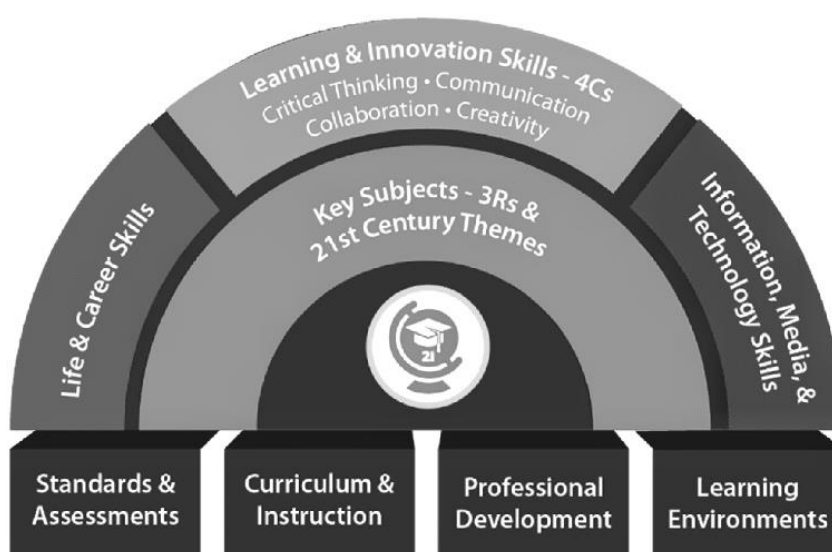
In order to foster collaborative learning in the twenty-first century, effective means of communication and collaboration are needed. Even though the emphasis in education has traditionally been on the importance of good communication skills like the ability to read, write and speak, the demands of this century and digital technology necessitate a much wider and deeper personal portfolio of communication and collaboration skills to promote learning around each other. These abilities may be acquired in a variety of ways, but the most effective way is through communication and collaboration, whether in person or virtually using technology (Trilling & Fadel, 2009, Pascal and Gougou (2022). Because of the continual need for innovative products and services in the global economy, creativity is one of the most important twenty-first century abilities. Questioning, patience, openness to new ideas, and a high degree of trust are all characteristics of a positive learning environment that promotes creativity. According to Trilling and Fadel's

appeal for educators to cultivate creative settings, the Partnership for 21st century Skills (P21) framework argues that creativity can be taught (Trilling & Fadel, 2009). Aiming to infuse 21st century skills into education, The Partnership for 21st century Skills (P21), a well-known advocacy organization, suggested a framework for 21st century learning. In this framework, 21st century skills are based on three main branches called “Life & Career Skills”, “Learning & Innovation Skills – 4Cs (Critical thinking, communication, collaboration and creativity)” and “Information, media & Technology skills”. Another category named as “Core subjects and 21st century themes” which refers to the knowledge of traditional subjects and general awareness and/literacies underlies all other categories (Geisinger, 2016).

The Partnership for 21st century Skills (P21) was established in the United States with the purpose of putting 21st century competencies at the center of K12 education. Figure 1 is the summary of the Partnership for 21st century Skills' vision for learning in the 21st century is shown in Figure 1.

Figure 1

The Partnership for 21st century Skills Framework for 21st century Learning



Note. Battle for Kids (2009). *The Partnership for 21st Century Skills Framework for 21st century Learning* [Photograph]. Battle for Kids.

<https://www.battelleforkids.org/networks/p21/frameworks-resources>

P21 is a nationwide organization that was founded in 2001 with the support of the United States government and many foundation sector organizations such as Apple Computer Inc., Cisco Systems, Dell Computer Corporation, Microsoft Corporation and National Education Association (Voogt & Roblin, 2012). The framework established by the Partnership for 21st century Learning to assist practitioners in integrating skills into the teaching of essential academic topics, serves as a coherent, collaborative vision for learning. The main focus of this framework is about identification and definition of 21st century skills and competences, implementation issues and considerations for assessment (Voogt & Roblin, 2012). A young learner must be able to think critically, solve problems, communicate, collaborate, access relevant information fast, and utilize technology effectively, according to P21. These skills are prerequisites for those who want to attend college or enter the workplace right away (Greenhill, 2010; Pellegrino, 2012).

In this framework, students will learn the skills, information, and expertise they will need in order to be successful in the workplace and in life. The framework is a combination of topic knowledge and specific skills, as well as expertise and literacies (Partnership for 21st century Skills, 2009a). According to the P21 framework, developing fundamental academic subject knowledge and comprehension among all students is essential for implementing 21st century skills in any setting. To be able to think critically and effectively communicate, one must have a solid foundation in the academic disciplines (Partnership for 21st century Skills, 2009a). Hence, the framework gives a great importance on the results that matter. An education for the 21st century needs to be related to outcomes in the form of mastery in key subject knowledge as well as skills for the 21st century that are

anticipated and highly valued in school, in the workplace, and in the community (Bellanca & Brandt, 2010).

When compared to alternative frameworks, P21 provides a more detailed and broadly accepted definition of 21st century Skills (Dede, 2010). The 21st century skills in the P21 21st century learning framework schemes given in Figure 1 and the three sub-dimensions of these skills are as follows;

Learning and innovation skills

The first group of 21st century skills - learning and innovation skills - emphasizes critical thinking and problem solving, as well as communication and collaboration, and creativity and innovation. Critical thinking and problem-solving skills include to think creatively, work creatively with others and implement innovations. Communication and collaboration skills include being able to communicate clearly and collaborate with others. Lastly, creativity and innovation skills are necessary to be able to think creatively, work creatively with others and implement innovations (Partnership for 21st century Skills, 2009a).

Having these abilities paves the way for a lifetime of continuous learning and creativity. Learning and knowledge work skills, such as critical thinking and problem solving, as well as communication and collaboration are at the forefront of meeting today's and tomorrow's workplace needs for employees with these types of abilities (Trilling & Fadel, 2012 & Pintrich, 2000). Higher levels of imagination, creativity, and innovation are needed to constantly create new and better services and goods for the global marketplace in the 21st century. Discovering new things and coming up with new solutions is the focus of the third set of skills, creativity and innovation. The capacity to learn from and teach others, to communicate and

collaborate effectively in the pursuit of knowledge, and to generate novel ideas and solutions with the aim of improving the world (Trilling & Fadel, 2012).

Information, media and technology skills

The second group of 21st century skills - information, media and technology skills - emphasizes information literacy, media literacy and ICT (information, communications and technology) literacy. Information literacy includes access and evaluate information and use and manage information. Media literacy requires analyzing media and creating media products. Lastly, ICT literacy is necessary to be able to apply technology effectively (Partnership for 21st century Skills, 2009a).

Students in the twenty-first century must learn how to access, assess, use, manage, and contribute to the world's large information and media resources. Our students of the next generation will be equipped with extraordinary power with the digital tools of today and future, allowing them to think more deeply, learn, communicate, collaborate, and create more effectively than any generation before them. With such great potential comes the necessity of acquiring the knowledge and abilities to effectively manage vast quantities of information, media, and technology. Students are responsible for selecting the most relevant and engaging information and figuring out its optimal presentation. Keeping up with the constantly shifting world of information, media, and ICT literacy is crucial for effectively navigating the vast resources available to us in the information era. As a result, in the 21st century, everyone needs to improve their information literacy and fluency (Trilling & Fadel, 2012).

Life and career skills

The third group of 21st century skills - life and career skills - emphasizes flexibility and adaptability, initiative and self-direction, social and cross-cultural

skills, productivity and accountability and leadership and responsibility skills.

Flexibility and adaptability necessitate to adapt to change and be flexible. Initiative and self-direction skills include managing goals and time, working independently and being self-directed learners. Social and cross-cultural skills require one to be able to interact effectively with others and work effectively in diverse teams.

Productivity and accountability skills include managing projects and producing results. Lastly, leadership and responsibility skills are necessary to be able to guide and lead others and be responsible to others (Partnership for 21st century Skills, 2009a).

21st century learning, work, and citizenship require flexibility and adaptability. In a fast-changing world, everyone needs "flexibility" to adjust and adapt strategies. In our every time, rapid and flattened workplace, managers have less time to coach and guide people. Workers must be self-motivated, ready to take charge, and be self-reliant. Students of today, then, need to develop greater degrees of initiative and self-direction as they move through the educational system in order to be ready for the realities of 21st century labor (Trilling & Fadel, 2012). In today's globalized world, it's crucial to be able to work productively and creatively with teammates and classmates despite cultural differences. As this century progresses, it will become increasingly crucial to recognize and appreciate social and cultural distinctions, as well as to draw upon these differences to generate ever more novel ideas and approaches to key matters. In business and education throughout history, productive employees and students have been in high demand. Skills that support working and learning equally and effectively include setting and achieving goals, prioritizing tasks, and making effective use of time (Trilling & Fadel, 2012). PreK-12 education in the 21st century requires active leadership that is both creative and

knowledgeable. The team's success usually depends on the members' level of social and emotional maturity, the range of their skills, and the quality of their leadership and dedication (Lemke, 2010). Taking on leadership responsibilities and developing cross-cultural competence empowers individuals to make positive changes in their lives and increase their influence in the classroom, the workplace, and the wider community (Rooke & Torbert, 2005).

Historical Background of Teaching Competences

A person's competence can be defined as their potential to utilize their existing set of knowledge, skills, abilities, attitudes, and personal qualities to successfully carry out a demanding activity in a given context (Chouhan & Srivastava, 2014). Throughout history, society has placed significant importance on teachers meeting certain standards of professional competence. Teachers' statistical and societal expectations for education have always changed over time in response to shifts in values, priorities, and goals, as well as economic conditions. However, modern digitalization has affected these factors, requiring a fresh approach to the problem of education and its teachers (Gümüş, 2022). Teachers are now evaluated using the same competency standards that were developed as 21st century skills, which means that the new forms of relationships developed in the 21st century have not only entirely reconstructed education but also the way in which teachers are evaluated. According to the OECD, 21st century skills are essential for participating in the evolving knowledge - based social system and maintaining a stable workforce (OECD, 2009). Teaching is about helping students build their own strong knowledge rather than merely transferring knowledge and information. It's a function that's very different from that of the classic teacher-centered education (Haryati et al., 2022). Different teaching skills are required for more student-centered approaches to

education. According to Kember, professional growth for educators is essential in light of shifting conceptions of what it means to educate and how students should be taught (Putnam & Borko, 1997). One distinction stands out as crucial in these modern approaches to education. This is the key difference between a classroom in which the focus is on the teacher and one in which it is on the students (Kember, 1997).

When it comes to teaching at the college and university level, constructivist methods have grown increasingly popular. There are currently a number of frameworks for teaching competences in higher education (Tigelaar et al., 2004). There are several aspects that are found in most frameworks, such as content knowledge competences, didactic competences (teaching techniques and presenting abilities), organizational competences, and scientific competences (Tigelaar et al., 2004; Aljarrah & Khataybeh, 2021). Key principles of effective teaching such as interest and explanation, concern and respect for students and student learning, appropriate assessment and feedback, clear goals and intellectual challenge, independence, control and active engagement and learning from students can be found in these frameworks (Ramsden, 1992).

Good teachers cannot be characterized in terms of separate skills or in terms of a large list of items, which is how teaching competencies are stated in the definition of teaching competencies (Tigelaar et al., 2004; Nguyen et al., 2021). As such, there is a call for teacher education programs to facilitate preservice teachers' personal development of these skills as well as their application to educational settings (American Association of Colleges for Teacher Education, 2010). In the light of all this information, it is much more important that teachers create a student-oriented learning environment and plan lessons to improve each student's individual

needs and missing skills, rather than just giving teacher-based education. As mentioned before, possible trainings to improve teachers' teaching competencies will bring students to a much better State in terms of adapting to the new world order more easily, and lifelong learning (Kember, 1997).

English Language Teaching Competencies

One cannot simply speak English and become a qualified English teacher. It is a profession, which implies that English teaching is regarded as a career in a field of educational expertise. It also indicates that membership in this type of profession is dependent upon meeting certain entry requirements and professional standards (Richards, 2010). To properly prepare educators to teach English as a foreign language, we should first have a thorough comprehension of what it means to be competent and knowledgeable in the field of language instruction (Richards, 2010). European Profile (EP) and European Portfolio for Student Teachers of Languages (EPOSTL) are two examples of standards for prospective teachers. The EPOSTL was made to make teacher training in Europe more consistent. Its main goal is to help teachers think more deeply and evaluate themselves. It could be used throughout the teacher training curriculum to improve results (Burkert, 2009).

By offering more feedback sessions to prospective teachers, language teacher training programs must better integrate theory into practice in actual classroom settings (Kömür, 2010). Having the capacity to connect with students on a personal level is valuable, and students' own unique creativity and ability to study on their own is emphasized. Content knowledge, pedagogical knowledge, and student knowledge are the three categories of teachers' specialized knowledge. Complex relationships exist between these three domains as they appear in classroom life and the minds of teachers (Johnson and Goettsch, 2000).

In order to prepare future English teachers, the Council of Higher Education (CHE) requires that all schools of education follow a common and required curriculum. However, they are given some autonomy over how the program is implemented. Thus, schools may provide varying curricula, methods, textbooks, and evaluations (Peacock, 2009). Since 2006, when the CHE redesigned the curricula of the education faculties to be responsive to the shifting needs and requirements of the social, educational, and political contexts; as well as local, national, and international criteria, the program has been in service (Peacock, 2009b). Courses in the first year are designed to help prospective teachers become more proficient in four major language skills. They study a wide range of courses that are more professionally focused by the time they reach the junior and senior levels, enabling them to acquire general and pedagogical knowledge in addition to linguistic competence (Karakaş, 2012).

Language, culture, instruction, assessment, and professionalism are the five categories that constitute Teaching English to Speakers of Other Languages' (TESOL) accreditation review handbook for National Council for Accreditation of Teacher Education (NCATE) (Kuhlman & Knežević, 2010). Teachers of English as a foreign language are expected to not only be fluent in the language they teach but also to have a firm grasp of the fundamentals of linguistics, language systems, and ideas and concepts related to second language (L2) acquisition (Freeman & Freeman, 2014; Andrews, 2001). To better grasp how cultural identity is formed, as well as intercultural communication and acculturation processes that occur during L2 acquisition, teachers need training in the culture domain (Diaz-Rico, 2019; Cook, 2016; Doughty, 2005). As an English as a second language (ESL) instructor, being able to select and implement the most effective forms of curricula and employ

instructional resources that are suited for the needs of a particular learner profile is part of the instruction domain (Macalister & Nation, 2019; Richards, 2017).

Assessing and evaluating second language learners' linguistic development in terms of placement, diagnosis, success, and proficiency is the primary focus of this domain, which places special emphasis on the competences of language educators. Lastly, the professionalism domain stresses the importance of the English language teacher keeping updated of developments in the field of education, both domestically and globally (Coombe et al., 2021; Burns & Richards, 2009; Ramanathan & Morgan, 2007; Goldstein et al., 2002). A number of TESOL competencies are covered in Türkiye's current English language teacher education programs, such as language and linguistics, learner variables, English teaching methods, practicum, instruction, assessment/evaluation, and educational/pedagogical topics etc. (Mahalingappa & Polat, 2013).

It is only normal that teaching standards vary from country to country and that the same criteria might be used for teachers at different stages of their career, given that each country develops distinct policies for teachers in keeping with the local and national demands (Kleinhenz & Ingvarson, 2007).

English Language Teaching Competencies in Türkiye

A clear definition of educational efficacy is difficult to come by because of the culturally variable ideas of what constitutes successful instruction. A competent teacher in various cultures is one who exerts authority over students, guides them in the right direction, and keeps a formal gap between them. Students are more or less beneficiaries of the teacher's knowledge and wisdom. In this view, the instructor has complete authority over the classroom environment and how students learn.

Therefore, a teacher may have a different role as a facilitator in distinct cultures

(Richards, 2010). For sustained and robust economic growth, the educational policies being developed now are crucial. In this regard, the prevalent viewpoint in Türkiye prioritizes supplying individuals with high-quality vocational training that provides in-demand skills. The expectations of Turkish families, and thus the country's educational policy, appear to be shifting in this way (Taşdemir et al., 2019).

As a kind of national teacher standards, we might include the generic and field-specific teacher competences established by the Turkish Ministry of National Education (MoNE) (Atmaca, 2017). To support their professional growth, teachers of English have been provided with a list of specialized competences developed by the MoNE. It is based on the European Qualifications Framework (European Commission, 2008), the Turkish Qualifications Framework (MYK, 2015), and the Turkish Higher Education Qualifications Framework (YÖK, 2010). While there has been no change to the ELT primary level subject-specific competencies, the generic competencies have been stated to be more expansive than before (Uztosun, 2018). The new generic competencies are included below, broken down into their respective categories: professional knowledge, professional skills, and attitudes and values. Content knowledge, pedagogical content knowledge, and legislation knowledge are all components of a professional's repertoire of skills. Competencies in this area apply to both in-class and extra-curricular activities that shape and direct teaching and assessment. Respect for students, interest in further education, and working well with others are all examples of the former, while moral, local, and global values are examples of the latter (MoNE, 2020).

Türkiye's teacher education system has undergone profound shifts in parallel with improvements in teacher education taking place all over the world. The English teacher education program began in 1997 and was altered in 2006 to reflect changes

in the field of teacher education in Türkiye, with the purpose of preparing teachers to effectively communicate with their students in English (Seferoglu, 2006). The classroom circumstances in this curriculum are established through games and dialogues, therefore students need to have a solid foundation in everyday communication skills. The goal is to keep students interested while they learn English (Kırkgöz, 2005). While pre-service teacher education has improved, a strong link between theory and practice has yet to be formed. This is why there is a current push to better prepare future educators by bridging the gap between what they study in faculty courses and the realities of the classroom (Başyurt Tüzel & Akcan, 2009).

The Relation of the 21st century Skills and Teaching Competencies

Changes in the social, economic, and educational settings are strong factors in determining the qualifications of teachers. The significance of teachers' competencies in influencing student success has always been emphasized. Being a capable student is one of the most fundamental qualities a teacher should possess. For students to successfully adapt to new contexts, it is essential that teachers improve their own instructional methods, monitor developments in their profession, and deliver these developments to their students in an engaging way (Gümüş, 2022).

Teachers are evaluated in light of the competency requirements Stated as 21st century skills, while the new types of relationships produced in the 21st century have entirely rebuilt education. To face the most recent economic difficulties, teachers must not only ensure that their students' academic achievement is developing, but also develop a workforce with 21st century skills and a complete personality (Gümüş, 2022). As a means of adapting to the needs of the modern workplace, schools have begun to place a greater emphasis on 21st century skill-based teaching techniques. Schools and other educational institutions are the finest organizations for helping

students learn new skills so they can fulfill market requirements. There is a critical need for a more systematic approach to education that places a strong emphasis on teachers' abilities to transfer 21st century skills to their students (Sulaiman & Ismail, 2020).

Competence is an important characteristic that reflects an individual's adaptability to new circumstances and ways of thinking throughout time. Competence can be defined as a set of actions that contribute to a successful outcome. Competence, from an educational point of view, is the integration of accumulated experience and theoretical understanding of the teaching profession. A major turning point in the successful adoption of 21st century skills practices was teachers' capacity to interpret strategies, integrate knowledge, and apply skills through reflective strategy (Kunter et al., 2013). The P21 Framework Definition was created by Partnership for the 21st century to aid educators in their pursuit of this goal (Partnership for 21st century Skills, 2009a). It can be said that the success of an education system rests on the shoulders of its educators. Teachers have a significant impact on students' learning and the success of any educational program, as demonstrated by this Statement.

Teachers should be capable of learning the most recent technological abilities in addition to being curriculum experts and having strong, empathic teaching skills. We need teacher training programs that put the needs of students first and use technology to help their learners develop 21st century skills (Palmer, 2015). When compared to digital skills, the scope of 21st century abilities is far greater. Ethical and cultural awareness, adaptability, self-direction, collaboration, critical thinking, creativity and lifelong learning are just a few examples. These are the kinds of abilities that will help students succeed in the global workplace of the future.

Teachers nowadays are expected to not only help their students develop skills necessary for success in the 21st century, but also to demonstrate mastery of such skills themselves (Voogt & Roblin, 2012). Therefore, teachers need to be equipped with the 21st century skills outlined by the Partnership for 21st century Skills, such as learning and innovation skills, life and career skills, information, media and technology skills (van Laar et al., 2017).

Similar Studies

To support all teachers and students in acquiring transferable knowledge and skills, it was necessary to revise the educational policies and practices in use today. Due to these concerns, experts and academics in the field of education have been advocating for new educational policies that emphasize the acquisition of generalizable knowledge and skills, also known as "21st century skills". The essence of 21st century skills is an approach to teaching and learning that places more value on teachers' and students' abilities than on the quantity of knowledge they possess (Silva, 2009).

Çelik and Aşıksoy (2018) conducted a study examining the self-perceptions of pre-service teachers regarding their 21st century skills. The researchers aimed to explore how pre-service teachers evaluated themselves in terms of critical thinking, creativity, communication, and collaboration, which are key components of 21st century skills. The study involved collecting data from a sample of pre-service teachers and analyzing their self-perceptions through a descriptive analysis. The findings of Çelik and Aşıksoy (2018) indicated that pre-service teachers generally held positive self-perceptions of their abilities in the 21st century skills. Similarly, Çokadar and Çetin (2019) found that while the majority of the participants had positive attitudes towards integrating 21st century skills into their teaching, there

were some gaps in their understanding of what these skills entail and how to effectively teach them. For instance, some participants associated 21st century skills solely with technology, overlooking other important skills such as critical thinking and collaboration. It is also believed that these skills can be developed through engaging and dynamic learning environments that incorporate technology, project-based learning, and real-world applications (Ekizer & Yıldırım, 2023).

One study conducted by Şahin and Han (2020) aimed to examine the attitudes and levels of understanding of EFL teachers in Türkiye regarding the use of technology in the classroom and the cultivation of 21st century skills. Using a mixed method sequential explanatory strategy, the researchers found that collaboration, communication, creativity, critical thinking, problem solving, and media literacy are all required skills to cultivate in 21st century EFL lessons. The study revealed that teachers' attitudes and levels of understanding have a key effect on their students' capacity to use technology in the classroom. Therefore, Şahin and Han recommended that teachers should be engaged in using educational technological tools, discussing global concerns in everyday life interactions, and learning about the needs of the twenty-first century.

In addition, the study conducted by Ataberk and Mirici (2022), investigated the presence of 21st century skills within ELT programs in Türkiye. The findings revealed varying degrees of integration and emphasis on these skills in the curriculum and instructional practices of ELT programs. The study identified areas where 21st century skills were effectively incorporated, such as collaboration and critical thinking, while highlighting the need for further development in areas such as digital literacy and creativity.

Ekinci's (2019b) study focused on the perceptions of English teachers regarding the introduction and integration of 21st century skills into their teaching practices, as well as the use and teaching of these skills. The study's findings backed up the idea that introducing and fostering 21st century skills in the classroom benefited both students and teachers. It was also verified that educators in the field of EFL value and incorporate 21st century skills into their lessons wherever possible. In order to encourage the usage and development of 21st century skills, the teachers adapted various roles and did their best. According to Ekinci (2019a), teachers have taken on more responsibility to meet the changing educational trends and growing requirements of the 21st century.

Bedir (2019c) emphasizes the role of institutional support in integrating 21st century skills into teacher education curricula. Bedir argues that the recently reconstructed curriculum of Turkish teacher education institutions aimed to promote teacher professional development and innovative teaching performance by offering a variety of professional development courses. He also highlights the importance of teachers' attitudes and perceptions towards 21st century skills, which can greatly influence the success of their implementation in the classroom (2019).

In a similar vein, a study by Zhou and Brown (2016) investigated the relationship between the development of 21st century skills and academic achievement among students in China. They found that students who developed stronger 21st century skills showed higher levels of academic achievement, suggesting that these skills are not only valuable for life and work outside of school, but also for academic success. Another study by Rabbany, Shirazi, and Ahmadabadi (2020) explored the effectiveness of a 21st century skills-based instructional model on EFL learners' language proficiency and critical thinking ability. The study found

that the model significantly improved students' language proficiency and critical thinking ability, demonstrating the value of incorporating 21st century skills into language instruction.

Another study by Trilling and Fadel (2012) focused on the changing needs of students in the 21st century and how education must evolve to meet those needs. Trilling and Fadel argued that helping as many students as possible learn to apply 21st century skills and a good grasp of fundamental topics to the issues of our time means helping them prepare for work and life in today's world. Therefore, they believe that education in the 21st century places a greater focus on developing the required abilities to learn and sustain learning. Trilling and Fadel also Stated that education must strive to educate a generation of individuals who will be able to acquire the information and skills necessary to harness the power of digital technology to increase their chances of gaining the communication, collaboration, creative thinking and creativity skills, also known as the 4Cs (Trilling & Fadel, 2012).

Another study by Fathi and Derakhshan (2020) explored the relationship between teacher education and the development of 21st century skills among EFL teachers. The researchers found that teacher education programs had a significant impact on the development of these skills, particularly in terms of providing opportunities for teachers to learn about and practice implementing them in the classroom. The study also revealed that effective teacher education programs should involve not only theoretical knowledge but also practical experience and ongoing professional development. In a similar vein, Erden and Başoğlu (2019) investigated the impact of teacher education on EFL teachers' attitudes towards 21st century skills. The study found that while most of the participants recognized the importance of

these skills, there were some discrepancies in their perceptions of what constituted 21st century skills and how to effectively integrate them into their teaching. The researchers recommended that teacher education programs should emphasize the development of these skills through a combination of theoretical knowledge and practical experience.

Overall, these studies highlight the need for teacher education programs to place a greater emphasis on the development of 21st century skills among prospective EFL teachers. In order to effectively prepare students for the demands of the 21st century, it is essential that teachers possess a strong understanding of what these skills entail and how to effectively teach them in the classroom.

CHAPTER 3: METHOD

Introduction

The method of any study represents the outline and the rationale of it. Without the methodology part, a clear representation of the research framework is hard to understand. Therefore, this chapter presents the methodology of the study, including its research design, context, participants, and method of data collection and data analysis.

Research Design

This study is explanatory designed as sequential mixed methods research. Mixed method approaches permit researchers to use a variety of methodologies, integrating inductive and deductive reasoning and offsetting the limits of strictly quantitative and qualitative research through a complimentary strategy that provides the maximum strengths of each data type (Hewson, 2011). Explanatory sequential mixed methods is a research design that involves collecting and analyzing both qualitative and quantitative data in a specific sequence. It begins with the quantitative phase to identify patterns or trends, followed by the qualitative phase to provide deeper insights and explanations. The findings from both phases are integrated to gain a comprehensive understanding of the research phenomenon (Creswell & Plano Clark, 2017).

The Scale of Determining the Perceptions of Having 21st century Skills, developed by Durmuş (2022) and an interview form developed by the researcher were used as data collection tools. According to Kuechler (1998), a questionnaire gathers information for academic purposes by using a structured scale that is either administered by properly trained interviewers or sent to a randomly chosen group of

people for self-completion. Since this study aims to investigate the 21st century skills of prospective EFL teachers in Türkiye and ELT department academics' opinions about their students' 21st century skills, a sequential mixed method research design was suitable for achieving the aim of the study. The obtained data were analyzed via quantitative and qualitative data analysis methods.

Context

The study was conducted in the ELT teacher education departments of two Turkish universities, one public and the other foundation, in Ankara, Türkiye using purposive sampling method. The purposive sampling method is a type of non-probability sampling in which the researcher makes the judgments on who gets included and who does not, based on factors like the researcher's prior expertise with the topic at hand, or the participants' abilities and motivations to take part in the study (Oliver, 2011).

The choice of these specific universities was strategic, as they represent different segments of the Turkish higher education landscape. The selected state university typically enrolls students who score higher on the university entrance examination, while the foundation university tends to enroll students with lower scores. This difference in student profiles could potentially influence the teaching and learning dynamics as well as the utilization of the 21st century skills within the ELT departments.

Moreover, the curriculum of these universities may differ. While both universities offer compulsory courses, the state university may offer different elective courses compared to the foundation university. This variation in curriculum could impact the pedagogical approaches and learning outcomes in the ELT departments. By comparing these two types of institutions, this study aims to explore

how these differences might influence prospective EFL teachers' perceptions on the 21st century skills.

Participants

The participants were selected from the English Language Teaching departments of the universities' faculties of education. The prospective teacher participants were specifically chosen from among the 3rd and 4th year students. This decision was based on the consideration that these students are on the cusp of entering the teaching profession and have already gained some teaching experience, either in real or simulated settings, as part of their program requirements. This experience, combined with their proximity to the professional field, positions them uniquely to provide valuable insights into the ELT teacher education process.

The participating prospective EFL teachers were selected using a criterion sampling method. This approach ensured that the participants were well-positioned to provide meaningful and relevant data for the study. First, their academic standing: only 3rd and 4th year students were considered. Second, their willingness and interest in contributing to this study. 102 prospective teachers participated in the study. The students were invited to take part in the study on a voluntary basis. In the multi-dimensional extreme value scanning, the degree of independence for the Scale of Determining Perceptions of Having 21st century Skills was determined as 18 and no extreme values were found ($\chi^2(19) = 36191, p < .001$). The demographic information about the prospective teachers is shown in Table 1.

Table 1*Demographic Information of Prospective Teachers (N= 102)*

Variable	Subgroup	<i>n</i>	%
Gender	Female	76	74.5
	Male	22	21.6
	Preferred not to mention	4	3.9
Year of study	3rd Year	42	41.2
	4th Year	60	58.8
University	State	69	67.6
	Foundation	33	32.4

As can be seen in the Table 1, majority of the participants (74%) were females. While 41.2 % of the students were 3rd year students and the rest were in their 4th year. Representing the size differences between the two representing universities, 67.6% of the participants were studying in the public university, while the rest were in the foundation one.

In addition to the prospective EFL teachers, ELT department academics teaching in the departments where the prospective teachers were studying were also included in the study. Their perceptions provided a complementary viewpoint to the students' perceptions about their 21st century skills competencies and contribute to a more comprehensive understanding. The academics who participated in the study were selected among those who teach the 3rd and 4th year students in the ELT departments of each institution. In total 14 academics took part in the study. The demographic information of the participating academics is given in Table 2.

Table 2*Demographic Information of ELT Department Academics (N=14)*

Variable	Subgroup	<i>n</i>	%
Gender	Female	9	64.3
	Male	5	35.7
Year of teaching experience	0-5 Year	1	7.1
	6-10 Year	1	7.1
	11-15 Year	4	28.6
	16-20 Year	1	7.1
	21 Years and more	7	50
University	State	7	50
	Foundation	7	50

As shown in the Table 2, majority of the participants (64.3%) were female, while 35.7% were male. In terms of teaching experience, 7.1% had 0-5 years of experience, another 7.1% had 6-10 years, 28.6% had 11-15 years, 7.1% had 16-20 years, and the largest proportion, 50%, had 21 years or more of teaching experience. Regarding the universities, 50% of the participants were affiliated with the state university, while the remaining 50% were affiliated with the foundation university.

Therefore, within the framework of this study, the researcher aims to gather data both from ELT department academics and prospective EFL teachers including 3rd and 4th year students from both state and foundation universities. The data was expected to be beneficial in arriving at detailed conclusions. Thus, detailed

information on the perception of 21st century skills among participants was aimed to be reached.

Instrumentation

In this section, the data collection tools used to obtain both quantitative and qualitative data are given. In order to collect quantitative data, a scale was adopted from the PhD dissertation of Durmuş (2022). This instrument was used to collect data both from the prospective EFL teachers and ELT department academics. The quantitative data was gathered through this scale and in addition to it a semi-structured interview protocol prepared by the researcher was utilized to collect qualitative data.

The Questionnaire

The questionnaire titled The Scale of Determining the Perceptions of Having 21st century Skills, developed by Durmuş (2022), based on the P21 framework, was adopted after permission in order to collect quantitative data concerning prospective EFL teachers' competency in 21st century skills. Descriptive analysis of the data was performed using SPSS Statistics version 24. The Cronbach alpha was calculated to evaluate the questionnaire's reliability. It was found to be 0.921, greater than 0.70. (Carmines & Zeller, 1979). Each group of participants was asked the identical set of questions from their own unique current perspective, with responses ranging from "never" "rarely" "sometimes" and "often" to "always". The researcher translated the scale into English and the English language version was reviewed by four expert academics (two from the field of English Language Teaching and two from the field of Translation and Interpretation). In the review process initially two academics from the field of Translation and Interpretation reviewed the English language version of the scale in terms of translation techniques and accuracy and also back translated in

order to assure the validity and reliability of the translated version. As a second review process, two academics from the field of ELT examined the translated version concerning its content accuracy and comprehensibility. It was also modified by the researcher with some minor changes of the pronouns to administer it to the academics in order to obtain their opinion regarding their students' competency of the 21st century skills. The versions used in this study can be found in Appendices A and B (Appendix A: Prospective EFL Teachers, Appendix B: ELT Department Academics).

In order to assure validity and reliability of the translated and modified versions of the scale, a pilot study was conducted in a large-scale state university in Ankara. In the piloting process 2 academics and 3 students took part and a qualitative approach was adopted. Feedback was given by one of the academic participants about the incomprehensibility of the 6th item on the scale (My students assert their dignity in the environments they are in). Therefore, it was decided to change the word "their dignity" to "respect" in the question to make it more understandable (My students assert respect in the environments they are in). Upon the approval of the experts, the final version of the scale was administered to the participant prospective teachers and academics.

The scale was composed of a demographic part with 3 multiple choice questions and 19 items with 5-point Likert type ("never", "rarely", "sometimes", "often", "always") measuring students' self-perception of their 21st century skills competencies and likewise academics' opinion about their students' competencies of 21st century skills under three sections, such as Life and Career Skills, Learning and Innovation Skills and Information, Media and Technology Skills.

Semi-Structured Interviews

Follow-up interviews with prospective EFL teachers and ELT department academics were conducted on a voluntary basis using a semi-structured interview schedule on a voluntary basis to further investigate the academics' and students' point of view about the ELT department students' 21st century skills competencies.

Before semi-structured interviews were conducted with the main participant groups, pilot interviews were conducted at one of the state universities in Ankara. The participants involved 3 prospective EFL teachers and 2 ELT department academics. The interviews were video recorded and lasted about 15-20 minutes with the students and 30 minutes with the academics. The aim of the pilot interviews was to test the questions, ensure the clarity and relevance of the questions, and check the feasibility of the research design.

The researcher prepared the interview schedule (Appendix C) in order to delve deeper into the data that could not be obtained from questionnaire questions. The 5 questions prepared aim to gather the opinions of prospective EFL teachers on the most important 21st century skills and their reasons that an English teacher should possess, their own perceptions of their proficiency in 21st century skills, the most frequently used 21st century skill, the motivating factors for utilizing these skills, and their perceptions on their competencies in reflecting on these skills in their written and oral assignments. After the schedule was created, it was submitted to 3 experts for their review. The schedule was finalized making the suggested revisions which is the need for a P21 Framework Definitions Summary Sheet (Appendix D) in order to make it easier for participants to remember skills during the interview and organize their answers according to these skills. In line with the feedback obtained from the pilot studies, a summary sheet with the themes of the 21st century skills of the P21

Framework was prepared in order to help the participants see the 21st century skills on the screen during the interview. In addition, the personal pronouns of the questions prepared for students were changed and adapted for academics. For example, “I can express myself effectively in different forms and contexts/My students can express themselves effectively in different forms and contexts”.

Method of Data Collection

Upon obtaining the approval of Bilkent University's ethics committee and target universities' ELT departments, 3rd and 4th grade ELT department students and academics were invited to respond to the items in the scale and follow up interviews were conducted with volunteering participants.

The Questionnaire

For conducting the questionnaire, a Google Form link was created and was sent to the chairs of ELT departments at target institutions via email. The consent form obtained from the ethics committee of Bilkent University was sent and permission was obtained from the department chairs. The department heads sent the link to 3rd and 4th year prospective EFL teachers and ELT department academics via email, and volunteering participants were asked to fill out the questionnaire. Participants were given 2 weeks to complete the questionnaire. 75 out of 200 3rd and 4th year students at a state university and 33 of 120 3rd and 4th year students at a foundation university voluntarily participated in the study. However, in line with the results of the analysis, the data obtained from 6 participants were found as extreme values when considering the total data, and the data were removed. As a result of the process, the number of participants was reduced to 102 and the study was continued with the data of these participants. Finally, 70 of the 102 volunteer teacher candidates participating in the study were studying at the state university and 32 of

them studying at the foundation university. In addition, the questionnaire was sent to all the 7 academics teaching at the state university and 7 academics teaching at the foundation university and all of them participated in the study voluntarily.

Semi-Structured Interviews

To investigate further about the competencies of prospective EFL teachers, semi-structured interviews were held with both the prospective teachers themselves and their professors. The interviews were conducted in English and recorded via Zoom. A total of 11 academics and 15 students from the two universities included in the research were interviewed. The recorded interviews were converted into transcripts with the help of the “Sonix.ia” program, and they were checked by the researcher to see whether the interviews were accurately transcribed and finalized for the coding process. Additionally, the transcripts were checked for any transcription errors by an ELT department academic as well. Since transcription is a subjective process that requires careful attention to detail and accuracy, it is recommended that transcription be checked again by an expert to ensure its reliability and validity. By having the transcription also checked by an expert, the researcher can verify that the transcription accurately reflects the words and meanings of the participants' responses, and ensure that the transcription is consistent and reliable (Braun & Clarke, 2013).

Methods of Data Analysis

The Questionnaire

Descriptive Statistics was conducted using the Statistical Package for Social Sciences (SPSS 28.1) to analyze the quantitative data collected from the scale. First, the scale responses were transferred to the SPSS program separately according to the target audience (prospective EFL teachers and ELT department academics). Next, it

was examined whether missing data was obtained, and it was seen that there was no missing data. In the following step, extreme value scanning was performed on the data obtained. Extreme value scanning was carried out in two stages. In the first stage, item scores were converted to standard z scores and it was examined whether their values were in the range of ± 3 . It was accepted that the participants who were outside of this value showed extreme values (Kline, 2016).

As a result of the examination, it was determined that a total of 6 university students showed one-way extreme values and these individuals were excluded from the data set. After this process, multi-dimensional extreme values scanning was started with the data set of the remaining 102 people. Multidirectional extreme values scanning was performed with Mahalanobis distance (D). In this approach, extreme values are determined by χ^2 values and a stricter significance level is recommended. Therefore, in this study, χ^2 significance value for Mahalanobis distance was determined as .001 when the number of items was the degree of independence (Kline, 2016).

In order to test the assumption of normality, which is one of the assumptions of the analyzes to be used within the scope of the research, both the total scores of the scales and the independent variables of "gender", "year of study" and "university" were examined separately, and it was observed that the skewness and kurtosis coefficients were in the range of ± 1 in all these cases. In addition, Kolmogorov-Smirnov normality test was performed for the total scores of the prospective EFL teachers and ELT department academics. In Table 3, the total scores of prospective EFL teachers and ELT department academics obtained from The Scale of Determining the Perceptions of Having 21st century Skills are presented.

Table 3*Normality Test Results: Total Scores of Prospective EFL Teachers and ELT**Department Academics*

Sub-dimensions	Kolmogorov-Smirnov		
	Statistics	df	p
Life and Career Skills	0.095	102	.023*
Information, Media and Technology Skills	0.112	102	.003*
Learning and Innovation Skills	0.142	102	.00*
Total score	0.070	102	.200

Note. * $p < .05$. The total score was normally distributed, but the subscales were not.

As can be seen in Table 3, the significance value was .200 for the total score and it was not significant, in other words, the distribution did not differ significantly from the standard normal distribution. In addition, LCS, IMTS and LIS sub-dimensions were significant which shows that the distribution differed significantly from the standard normal distribution. In the light of all this information, when a multiple evaluation was made, it was decided that the distribution was close to normal. In statistical analysis, the assumption of normality refers to the assumption that the data follows a normal distribution. When data is normally distributed, parametric tests like t-tests can be employed. It is essential to check for normality as violating this assumption can lead to incorrect conclusions and inaccurate statistical inferences (Pallant, 2016). In addition, Table 4 presents the normality test results of prospective EFL teachers and ELT department academics based on their mean scores.

Table 4

Normality Test Results: Mean Scores of Prospective EFL Teachers and ELT

Department Academics

Sub-dimensions	Mean	Skewness	Kurtosis
Life and Career Skills	4.09	0.05	-0.84
Information, Media and Technology Skills	4.31	-0.40	-0.34
Learning and Innovation Skills	4.31	-0.40	-0.34
Total score	4.20	-0.05	-0.51

As shown in Table 4, in the LCS sub-dimension, the mean score was found 4.09. The distribution of scores in this sub-dimension showed a slight right skewness (0.05) and a kurtosis of -0.84, suggesting a distribution that is slightly less peaked and with lighter tails compared to a normal distribution. In the IMTS sub-dimension, the mean score was found 4.31, indicating a relatively high level of competence. The distribution of scores displayed a slight left-skewness (-0.40) and a kurtosis of -0.34. Similarly, the LIS sub-dimension also yielded a mean score of 4.31, with a slightly left-skewed distribution (-0.40) and a kurtosis of -0.34. The overall total score, encompassing all sub-dimensions, had a mean score of 4.20, indicating a good performance on average. The total score distribution exhibited a slight negative skewness (-0.05) and a kurtosis of -0.51. Overall, the normality test results suggest that the scores in each sub-dimension and the total score are approximately normally distributed, although with slight deviations from perfect normality indicated by the skewness and kurtosis values.

Semi-Structured Interviews

After the interviews were transcribed, the answers obtained from both prospective EFL teachers and ELT department academics were separated under each interview question by the researcher and turned into a new document. The answers given by the teachers and students to the semi-structured interview questions were read three times to check the reliability of the transcription by the researcher. After the detailed reading, codes were created after the fourth reading. Prior to conducting the content analysis, based on the P21 framework, a priori list was prepared which included some important concepts from the interview data to be analyzed. The priori list consisted of essential concepts extracted from the interview data that needed to be analyzed. This list served as a guide for the analysis process. The researcher then searched for these identified concepts within the data and based on their occurrences, relevant categories and themes are determined. By utilizing the priori list, the analysis was structured and systematic, ensuring that important concepts were captured and analyzed consistently (Bazeley, 2013). Then, these concepts were sought in the data and depending on the occurrences, categories and themes were determined.

In the content analysis of the interview data, a combination of deductive and inductive approaches was employed. A priori (selective) coding was initially utilized to develop descriptive or interpretive qualitative codes for the data analysis. The goal of deductive, or a priori, analysis is to test a theory by comparing it to data. It can be thought of as a "top-down" method of examining data. Typically, this involves assigning codes to the data in advance, as is done in qualitative analysis. Both pure organizational tools and codes based on concepts gathered from the literature, theory, or the researcher's own propositions can be constructed (Bingham & Witkowsky,

2022). The final version of themes, categories and codes were created based on the research questions were identified together with an expert to avoid subjectivity. In the last stage, categories, themes and codes were tabulated and interpreted (Appendix E: Prospective Teachers, Appendix F: Academics). The example of priori (deductive) coding from the prospective EFL teachers' responses can be seen in Table 5.

Table 5

Priori List Codes of Prospective EFL Teachers' Responses

Code	Stand for
LIS	Learning and Innovation Skills
IMTS	Information, Media and Technology Skills
LCS	Life and Career Skills

Table 6 shows the example of the coding scheme for the first interview question, which includes the question, main themes (21st century themes), sub-themes and codes, frequency and the example quotes of the prospective EFL teachers.

Table 6

Sample Analysis of Priori List Codes of Prospective EFL Teachers' Responses

Questions	Main themes	Sub-themes and codes	Frequency	Example Quotes
Important skills	All skills Code:AS	-	0	-
	Learning and Innovation Skills Code: LIS	Creativity and innovation Code:CI	8 (4 state + 4 foundation)	*SS2: ...what I can see, creativity is also very important. SS4: I think it's creativity... SS6: I think it is creativity... SS15: I think there are two. And one of them is communication, and the other one is creativity. **PS5: ...secondly, I say creativity...

Questions	Main themes	Sub-themes and codes	Frequency	Example Quotes
				PS7: ...to be creative. PS10: An English teacher should have creativity... PS11: I guess they are creativity and innovation skills...
		Critical thinking Code: CT	0	-
		Problem solving Code: PS	3 (1 State + 2 foundation)	SS6: ...problem solving... PS12: First of all, I think that communication skills should be strong, and I also think that he should have problem-solving and flexibility skills. PS13: I think problem solving skill is one of the most important.
		Communication Code: COM	4 (1 state + 3 foundation)	SS15: I think there are two. And one of them is communication, and the other one is creativity. PS1: To be able to communicate well with children. PS12: First of all, I think that communication skills should be strong, and I also think that he should have problem-solving and flexibility skills. PS14: I think it is important for an English teacher to have communication skills.
		Collaboration Code: COL	1 (foundation)	PS11: And also, collaborating with others is also important...
	Information, Media and Technology skills (21 st century theme) Code: IMTS	ICT literacy Code: ICT	4 (2 state + 2 foundation)	SS2: I think information literacy is very important... SS3: ...I think the literacy part is the most important part... PS8: ...is the use of technology. PS11: ...also media...
	Life and Career Skills (21 st century theme) Code: LCS	Flexibility and adaptability Code: FA	2 (foundation)	PS9: ...the most important ones are flexibility and adaptability. PS12: First of all, I think that communication skills should be strong, and I also think that he should have problem-solving and flexibility skills.
		Initiative and self-direction Code: ISD	0	-

Questions	Main themes	Sub-themes and codes	Frequency	Example Quotes
		Social and cross-cultural skills Code: SCC	0	—
		Productivity and accountability Code: PA	0	—
		Leadership and responsibility Code: LR	1 (foundation)	PS5: ...I would say leadership.

Note. This table only shows the example of first interview question's coding.

*SS = state university student

**PS = foundation university student. In this context "students" refers to the "prospective EFL teachers" referred in the study.

As can be seen in Table 6, the predetermined main themes and sub-themes are the components of 21st century skills which are based on the P21 framework. Participants answers are determined based on the framework's concepts. However, to ensure comprehensive analysis, the researcher employed inductive encodings for interview questions where participants' answers did not align with the predetermined framework concepts. In inductive analysis, the researcher looks through the data and enables codes to emerge/names concepts as they occur. Inductive analysis can be done in a variety of ways. In vivo coding is one approach; it refers to the linguistic codes that emerged from the words and phrases actually used by the participants (Bingham & Witkowsky, 2022). The example of the in vivo coding from the prospective EFL teachers' responses for the interview question 4 (What encourages you to use the 21st century skills in your classes?) can be seen in Table 7.

Table 7

Emerged Codes of Prospective EFL Teachers' Responses

Code	Stand for
GRW	Group work

Code	Stand for
TECH	Technology
BGT	Being a good teacher
INS	Inner-self
UGE	Undergraduate education

To ensure the reliability and validity of the coding process, a rigorous approach was taken. The researcher, who possesses expertise in qualitative data analysis, conducted the initial coding of the prospective EFL teachers' responses. However, to enhance objectivity, a second expert, an academician with extensive experience in qualitative analysis, independently coded approximately 25% of the data. The researcher and the academician then compared their codes and achieved a high agreement rate of 95%. For analyzing the ELT department academics' interview data, similar steps were taken.

CHAPTER 4: RESULTS

Introduction

In this chapter, the results from the data analysis are presented in the light of the research questions of the study. The results of the study are presented below under four sub-sections namely, “prospective EFL teachers’ perceptions”, “prospective EFL teachers’ perceptions according to university type”, “ELT department academics’ perceptions”, “ELT department academics” perceptions according to university type” and lastly “comparison of perceptions of prospective EFL teachers and ELT department academics”. Table 8 summarizes the data collection instruments and data analysis methods for each research question addressed in the study.

Table 8

A Summary of Data Collection Instruments and Data Analysis Methods per Research Question

Research Questions	Participants	n	Type of Data	Data Collection Method	Data analysis
1. Prospective EFL teachers’ perceptions	3rd and 4th year ELT students (Prospective EFL teachers)	102 14	Quantitative- Qualitative	Questionnaire Interviews	Descriptive Statistics Content analysis
2. ELT department academics’ perceptions	ELT department academics	14	Quantitative - Qualitative	Questionnaire Interviews	Descriptive Statistics Content analysis
3.a. Prospective EFL teachers' perceptions according to university type	Junior and Senior year ELT students	102	Quantitative - Qualitative	Questionnaire Interviews	Inferential Statistics - T-test Content analysis
3.b. ELT department academics’ perceptions according to university type	ELT department academics	14	Quantitative - Qualitative	Questionnaire Interviews	Descriptive Statistics Content analysis

Research Questions	Participants	n	Type of Data	Data Collection Method	Data analysis
4. Difference between the perceptions of prospective EFL teachers and ELT department academics	Junior and Senior year ELT students and ELT department academics	26 15 11 academics	Quantitative - Qualitative	Questionnaire Interviews	Descriptive Statistics Content Analysis

Prospective EFL Teachers' Perceptions

In the study, prospective EFL teachers' 21st century skills competencies and perceptions were inquired utilizing The Scale of Determining the Perceptions of Having 21st century Skills and face to face semi-structured prospectively. Findings of the data analysis related to prospective EFL teachers' perceptions are presented below under three sub topics, such as state university, foundation university and the effect of the university type, respectively.

State University: Descriptive Analysis Results

The answers of the prospective EFL teachers studying in the state university were descriptively analyzed looking at the sub-dimensions in the framework, namely, Life and Career Skills (LCS), Information, Media and Technology Skills (IMTS), and Learning and Innovation Skills (LIS). Table 9 below presents the Means and Standard Deviations for each sub-dimension.

Table 9

Overall Descriptive Analysis: State University Prospective EFL Teachers

Sub-dimension	N	Mean	Std. Deviation
Life and Career Skills	69	4.07	0.55
Information, Media and Technology Skills	69	4.27	0.46
Learning and Innovation Skills	69	4.19	0.59

As can be seen in Table 9, the mean score obtained for the LCS sub-dimension is 4.07 (SD = .55). The standard deviation (SD) value is an indicator of the variability or spread of the data. This indicates that on average, the participants scored relatively high in the LCS sub-dimension. The mean score obtained for the IMTS sub-dimension is 4.27 (SD = .46), indicating that the participants scored relatively high in this sub-dimension. It is important to note that the average score that can be obtained from this scale is 5.

Similarly, the mean score obtained from the LIS sub-dimension is 4.19 (SD = .59), indicating a high level of performance in this sub-dimension. The average score that can be obtained from this scale is 5. The participants scored, on average, approximately 2 standard deviations above the average score, demonstrating a strong perceived aptitude for LIS sub-dimension.

When the descriptive analysis was conducted for each item in the scale, it was observed that overall prospective EFL teachers studying at a State university perceive themselves to be fairly competent in almost all skills showing higher competency in certain skills compared to others. Table 10 on the next page presents the means and standard deviations for each question in the scale.

Table 10

Descriptive Analysis: State University Prospective EFL Teachers for Each Item

(N=69)

	Scale items	M	SD
1	I can express myself effectively in different forms and contexts.	4.09	0.68
2	I understand how and for what purpose media messages are created.	4.29	0.64
3	I use technology as a tool in researching, organizing, evaluating and communicating information.	4.54	0.63

	Scale items	M	SD
4	I influence and direct others towards a specific goal.	3.81	0.90
5	I use digital technologies, communication/network tools and social networks as a tool to access information.	4.57	0.65
6	I assert my dignity in the environments I am in.	4.01	0.85
7	I successfully complete multiple tasks at the same time.	3.90	0.91
8	I guess how much the issues covered by the media influence behavior.	4.09	0.74
9	I am open to new ideas.	4.43	0.68
10	I see myself as an active role model in guiding others.	3.94	0.95
11	I can communicate effectively in environments with different cultural characteristics.	4.17	0.92
12	I add a positive effect to the environment I am in.	4.16	0.83
13	I work effectively in environments with different cultural characteristics.	4.22	0.84
14	I turn new ideas into practice in a short time.	4.00	0.77
15	I see criticism as an opportunity to improve myself.	4.01	0.85
16	I approach every problem thinking that it has a solution.	4.12	0.81
17	I make effective use of media technologies.	4.22	0.78
18	I would guess how much the issues ignored by the media influence behavior.	4.14	0.77
19	I use the information I obtain by using digital technologies, communication/network tools and social media in a way that suits me.	4.33	0.66

Table 10 presents interesting findings about the perceived competencies of prospective EFL teachers in using digital technologies and communication tools as 21st century skills. Among the skills listed, the teachers perceive their strongest skills to be using technology as a tool in researching, organizing, evaluating and communicating information (item 3), with a mean score of 4.54 (SD = 0.63), and

accessing information through digital tools and social networks (item 5) with a mean score of 4.57 (SD = 0.65). This indicates that the teachers are confident in their ability to use digital tools for research, organization, and communication. However, they seem to be less confident in their ability to influence and direct others towards a specific goal (item 4, M = 3.81, SD = 0.90), to successfully complete multiple tasks at the same time (item 7, M = 3.90, SD = 0.91), and seeing themselves as an active role model in guiding others (item 10, M = 3.94, SD = 0.95) which suggests areas for improvement.

State University: Interview Results

During the interviews when asked to identify the most important 21st century skills, the prospective teachers who studied in the state university mentioned some of the 21st century skills as the most important ones while they never commented on some other skills which were present in the study's framework. The perceptions of the state university prospective EFL teachers on the most important 21st century skills that an English teacher should have can be seen in Table 11 on the next page.

Table 11

Most Important 21st Century Skills: State University Prospective EFL Teachers

21 st century themes	Skills	<i>f</i>
Learning and Innovation Skills	Creativity and Innovation	4
	Critical Thinking	0
	Problem Solving	1
	Communication	1
	Collaboration	0

21 st century themes	Skills	<i>f</i>
Information, Media and Technology Skills	ICT literacy	2
Life and Career Skills	Flexibility and adaptability	0
	Initiative and self-direction	0
	Social and Cross-cultural Skills	0
	Productivity and Accountability	0
	Leadership and Responsibility	0

As Table 11 illustrates, the identified skills are creativity and innovation ($f = 4$), problem solving ($f = 1$) and communication ($f = 1$). These skills are all categorized under the *theme* of learning and innovation skills. One of the prospective EFL teachers (SS4) expressed the belief that creativity holds significant value in education. Another participant (SS6) emphasized the essential nature of problem-solving abilities. The importance of both communication and creativity was highlighted by another prospective EFL teacher (SS15), who identified these skills as crucial. Additionally, one of them (SS2) stressed the high importance of information literacy. Hence, none of the prospective EFL teachers studying at a public university identified LCS and critical thinking and collaboration skills as important skills.

The participants were also asked about their reasons for identifying these skills as the most important ones. Table 12 presents the responses of the state university prospective EFL teachers about the main and sub reasons of importance of the identified skills.

Table 12

Reason Of Importance: State University Prospective EFL Teachers

Emerg ed themes	Sub-themes	<i>f</i>
Being a good teacher	Learning motivation of students	2
	Teaching process	1
	Managing classroom	1
	Lesson planning	1
Technology	Use of technology	1
	Internet as the source of information	1
	Technology as a tool for communication	1

Table 12 shows that as for the reasons of importance for the mentioned skills, the main reasons and sub-reasons were found to be learning motivation of students ($f = 6$), teaching process ($f = 1$), managing classrooms ($f = 1$), and lesson planning ($f = 1$) under the theme of being a good teacher. In addition, other sub-themes emerged according to the answers of the prospective EFL teachers as the reason of importance which is the use of technology ($f = 2$), internet as the source of information ($f = 1$), and technology as a tool for communication ($f = 1$) under the main theme of technology. One prospective EFL teacher (SS4) expressed the challenges of engaging with today's children and teenagers, noting their tendency to become easily bored. To address this, the teacher emphasized the importance of providing creative materials and topics to keep students involved in the learning process. Another interviewee (SS3) emphasized the necessity for teachers to possess the capability to understand and utilize technology effectively. Also, one of the prospective EFL teachers (SS2) expressed that in today's digital era, with almost everything accessible

on the internet, it is crucial for educators to harness a wealth of information from online sources and integrate them in their teaching process to enhance their effectiveness as teachers. Additionally, it was emphasized that (SS6) being adaptable as teachers is important. He/she believed that through creativity and resourcefulness, it is possible to create a better learning environment for the students and effectively address any issues that arise in the classroom. These statements highlight the perceived need for creative teaching methods and technological competence in engaging and effectively educating students in contemporary educational environments.

In the light of the research question 1, prospective EFL teachers were also asked about their competencies in using 21st century skills. Almost all of them stated that they found themselves as pretty competent in meeting the requirements of their departments as a student in cases where they needed to use and integrate these skills in their lesson plans, material preparations or situations where technology integration was necessary. Table 13 presents the overall summary of state university prospective EFL teachers' perceptions regarding their 21st century skills competencies.

Table 13

Competency in Using 21st Century Skills: State University Prospective EFL Teachers

21 st century themes	Skills	<i>f</i>
Learning and Innovation Skills	Creativity and innovation	2
	Critical Thinking	0
	Problem Solving	1
	Communication	2
	Collaboration	1
Information Media and	ICT skills	3

21 st century themes	Skills	<i>f</i>
Technology Skills		
Life and Career Skills	Flexibility and adaptability	0
	Initiative and self-direction	0
	Social and cross-cultural skills	1
	Productivity and accountability	0
	Leadership and responsibility	3
All themes	All sub-themes	1

As it is seen in Table 13 the skills that some prospective EFL teachers perceive themselves as competent are found to be creativity ($f = 2$), problem solving ($f = 1$), communication ($f = 2$), collaboration ($f = 1$), ICT skills ($f = 3$), social and cross-cultural skills ($f = 1$), leadership and responsibility ($f = 3$) and all 21st century skills ($f = 1$). In addition, it can be seen that, none of the prospective EFL teachers mentioned whether they are competent or not in using critical thinking, flexibility and adaptability, initiative and self-direction, and productivity and accountability skills. One of the prospective EFL teachers (SS3) expressed competency across various topics related to 21st century skills without explicitly mentioning them. Additionally, the SS3 highlighted their proficiency in problem-solving and technology, indicating a sense of pride in these skills. Another participant (SS6) emphasized their inclination towards taking responsibility and demonstrating leadership qualities.

However, they also talked about the skills that could be improved, such as using creativity and innovation skills, critical thinking, and problem-solving skills. Hence, one prospective EFL teacher Stated that he/she needs to improve all skills. Overall, the findings suggest that these prospective ELT teachers believed that they

had a high level of competency in using 21st century skills, but also recognized the need for continued development in these areas. Table 14 illustrates the frequency of comments by the State university prospective EFL teachers regarding areas to improve.

Table 14

21st Century Skills That Needs Improvement: State University Prospective EFL Teachers

21 st century themes	Skills	<i>f</i>
Learning and Innovation Skills	Creativity and Innovation	1
	Critical Thinking	3
	Problem Solving	2
	Communication	0
	Collaboration	1
Information Media and Technology Skills	ICT skills	0
Life and Career Skills	Flexibility and adaptability	1
	Initiative and self-direction	0
	Social and cross-cultural skills	0
	Productivity and accountability	0
	Leadership and responsibility	0
All themes	All sub themes	1

As Table 14 illustrates, the skills that are found to need improvement are creativity and innovation ($f = 1$), critical thinking ($f = 3$), problem solving ($f = 2$), collaboration ($f = 1$), flexibility and adaptability ($f = 1$), and all 21st century skills ($f =$

1). During the interview, one participant (SS15) openly stated to having limited proficiency in many of the 21st century skills. The acknowledged lack of specific skills, particularly critical thinking, and creativity. Similarly, another participant (SS6) expressed a similar sentiment, indicating a deficiency in critical thinking and problem-solving abilities. These statements highlight the participants' self-awareness of their current limitations in these particular skills within the context of 21st century competencies. Further, it is evident that none of the prospective EFL teachers have stated if they are competent in using communication, ICT skills, initiative and self-direction, social and cross-cultural skills, productivity and accountability, and leadership and responsibility skills.

In addition, prospective EFL teachers were asked about the most common 21st century skills that they utilize in the classes they take in their department. To be able to better understand the explained results, Table 15 illustrates the frequency of the skills mentioned.

Table 15

Most Common Skills: State University Prospective EFL Teachers

21 st century themes	Skills	<i>f</i>
Learning and Innovation Skills	Creativity and Innovation	2
	Critical thinking	0
	Problem solving	0
	Communication	2
	Collaboration	3
Information, Media and Technology Skills	ICT literacy	1

21 st century themes	Skills	<i>f</i>
Life and Career Skills	Flexibility and adaptability	1
	Initiative and self-direction	0
	Social and cross-cultural skills	0
	Productivity and accountability	0
	Leadership and responsibility	0

Table 15 shows that some prospective EFL teachers who studied in the State university mentioned identified the following skills while talking about the most common skills that they utilize: creativity and innovation ($f = 2$), communication ($f = 2$), collaboration ($f = 3$), ICT literacy ($f = 1$), and flexibility and adaptability ($f = 1$). One of the prospective EFL teachers (SS3) highlighted the importance of creativity and innovation as significant skills utilized in their field. He/she emphasized the abundance of principles, materials, and activities available, which necessitates the utilization of creativity. Additionally, he/she mentioned communication and collaboration as the most common skills employed, with information and technology skills following closely behind. Similarly, SS4 stated creativity as being a crucial skill in their field. He/she emphasized the vast array of principles, materials, and activities, which prompts them to leverage creativity by designing their own materials and generating innovative ideas. One of the prospective EFL teachers (SS6) expressed a preference for utilizing communication and collaboration skills as their most commonly employed competencies, emphasizing the significance of these skills in their work. Moreover, SS15 specifically identified collaboration as their primary skill of focus, indicating its importance in their professional context. Hence,

it can be seen that none of the prospective EFL teachers mentioned critical thinking, problem solving, flexibility and adaptability, initiative and self-direction, social and cross-cultural, productivity and accountability, and leadership and responsibility skills as the most common skills that they utilize.

Prospective EFL teachers were also asked about the encouragement in using 21st century skills in their departmental classes. Only a few comments about 21st century skills such as collaboration (group work) and ICT (technology) skills were addressed. To be able to better understand the results, Table 16 on the next page shows the responses of State university prospective EFL teachers concerning emerged themes and sub-themes of encouragement in using 21st century skills.

Table 16

Encouragement in Using 21st Century Skills: State University Prospective EFL Teachers

Emergед themes	Sub-themes	<i>f</i>
Group work	Peer interaction	2
Technology	Technology integration in daily life	1
Being a good teacher	Teaching successfully	3
	To motivate future students to learn English	1
	To compete with others	1
	Being up to date	1
Inner-self	Self-motivation	1
Undergraduate education	Departmental courses	1
	Instructors' encouragement	2

Table 16 illustrates the main themes and sub-themes that emerged according to the responses given to the situations that encourage prospective EFL teachers to use their 21st century skills are as follows: peer interaction ($f = 2$) under the main theme of group work, technology integration in daily life ($f = 1$) under the main theme of technology, becoming a good teacher ($f = 3$), motivate future students to learn English ($f = 1$), to compete with others ($f = 1$), and being up to date ($f = 1$) under the main theme of being a good teacher. Hence, inner motivation ($f = 1$) under the main theme of inner-self, and departmental courses ($f = 1$) and instructors' encouragement ($f = 2$) are also found to be important sub-themes under the main theme of undergraduate education. It can be seen that the most mentioned encouragement in using 21st century skills according to the prospective EFL teachers is being a good teacher ($f = 6$). One of the prospective EFL teachers (SS15) perceived that his/her friends' creative ideas serve as inspiration for developing his/her own skills in creativity. The influence of peers motivates SS15 to cultivate the creativity and explore innovative approaches in the ELT field. In a similar vein, SS4 expressed his/her aspiration to become a proficient teacher, emphasizing the importance of acquiring the necessary skills to excel in his/her teaching profession. SS6 recognized the competitive nature of the world and the need to differentiate oneself from others. Hence, SS2 attributed his/her motivation to the pervasive presence of technology in modern life. He/she highlighted how technology serves as a source of encouragement, and inspiring to leverage the 21st century skills in all aspects of endeavors. Also, SS2 mentioned that their teachers encouraged them by saying that if they create impressive projects, they would become role models for fellow students and contribute to a brighter future. Additionally, SS3 stated that having good communication with ELT department academics helps students to be

encouraged to use 21st century skills. Moreover, under the theme technology, prospective EFL teacher SS2's response was emphasizing how technology is involved in our daily lives and that it is motivating for him/her to use such 21st century skill.

Lastly, prospective EFL teachers were also asked about their competency in reflecting on their 21st century skills in their written and oral assignments. Table 17 presents the 21st century theme (communication) and sub-themes of competency in reflecting on 21st century skills.

Table 17

Competency in Reflecting on 21st Century Skills: State University Prospective EFL Teachers

21 st century theme	Sub-themes	<i>f</i>
Communication (Written)	Competent	5
	Needs improvement	0
Communication (Oral)	Competent	1
	Needs improvement	2

As seen in Table 17, prospective EFL teachers from the state university perceive different competencies in reflecting on 21st century skills in both written and oral assignments. One of the main themes from the interviews was written assignments, and within this theme, all of the prospective EFL teachers identified themselves as competent. No prospective EFL teachers identified any need for improvement in relation to reflecting on their 21st century skills in their written assignments. Another main theme was oral assignments. Competency in reflecting

on 21st century skills mentioned one time and the need for improvement identified two times. In addition, SS4 stated that since the classes in Türkiye are mostly teacher centered, he/she does not have the opportunity to use and apply his/her skills in class.

The following statements provided by prospective EFL teachers serve as examples of their perceptions regarding their 21st century skills competencies. Participant SS2 stated that they possess a reflective mindset and feel confident in their proficiency across all 21st century skills. They emphasized their ability to effectively use these skills and integrate them into their work. Likewise, SS4 acknowledged their strength in reflecting on their skills, specifically in the context of writing. They recognized their own capabilities and the significance of reflection in showcasing their skills. Conversely, SS15 expressed uncertainty in their ability to reflect their skills during presentations, indicating a specific area where they lacked confidence in their reflective abilities. In addition, one of the prospective EFL teachers (SS4) perceived that the nature of the classes in Türkiye are mostly teacher-centered, which limited their ability to use and apply their skills in the classroom.

Foundation University: Descriptive Analysis Results

The answers of the prospective EFL teachers who study in the foundation university descriptively analyzed looking at the sub-dimensions in the framework, namely, Life and Career Skills (LCS), Information, Media and Technology Skills (IMTS), and Learning and Innovation Skills (LIS). Table 18 below presents the Means and Standard Deviations for each sub-dimension.

Table 18*Overall Descriptive Analysis: Foundation University Prospective EFL Teachers*

Sub-dimension	<i>N</i>	<i>M</i>	<i>SD</i>
Life and Career Skills	33	4.15	0.51
Information, Media and Technology Skills	33	4.41	0.39
Learning and Innovation Skills	33	4.39	0.57

In Table 18, it can be seen that the mean scores achieved in the Life and Career skills sub-dimension is moderately high, with a mean score of 4.15 ($SD = 0.51$). Notably, the average score attainable on this scale is 5. Similarly, the score obtained from the information, media, and technology skills sub-dimension is relatively high, with a mean score of 4.41 ($SD = 0.39$), surpassing the average score of 5. Likewise, the Learning and Innovation skills sub-dimension score is pretty high, with a mean score of 4.39 ($SD = 0.57$), surpassing the average score of 5. As a result, it can be deduced that the participants have an average of approximately 2 standard deviations above the average score, indicating their proficiency in learning and innovation skills.

When the descriptive analysis was conducted for each item in the scale, it was observed that overall prospective EFL teachers studying in a foundation university perceive themselves to be pretty competent in almost all skills with a mean score above 4, except for one item (item 7). Table 19 below presents the means and standard deviations for each question in the scale.

Table 19

Descriptive Analysis: Foundation University Prospective EFL Teachers for Each Item (N= 33)

	Scale items	M	SD
1	I can express myself effectively in different forms and contexts.	4.33	0.69
2	I understand how and for what purpose media messages are created.	4.33	0.60
3	I use technology as a tool in researching, organizing, evaluating and communicating information.	4.76	0.44
4	I influence and direct others towards a specific goal.	4.06	0.79
5	I use digital technologies, communication/network tools and social networks as a tool to access information.	4.79	0.42
6	I assert my dignity in the environments I am in.	4.24	0.66
7	I successfully complete multiple tasks at the same time.	3.88	0.74
8	I guess how much the issues covered by the media influence behavior.	4.15	0.71
9	I am open to new ideas.	4.61	0.61
10	I see myself as an active role model in guiding others.	4.03	0.85
11	I can communicate effectively in environments with different cultural characteristics.	4.27	0.72
12	I add a positive effect to the environment I am in.	4.24	0.75
13	I work effectively in environments with different cultural characteristics.	4.27	0.63
14	I turn new ideas into practice in a short time.	4.03	0.81
15	I see criticism as an opportunity to improve myself.	4.36	0.74
16	I approach every problem thinking that it has a solution.	4.21	0.78
17	I make effective use of media technologies.	4.36	0.55
18	I would guess how much the issues ignored by the media influence behavior.	4.15	0.67

	Scale items	M	SD
19	I use the information I obtain by using digital technologies, communication/network tools and social media in a way that suits me.	4.27	0.57

In Table 19, the mean scores and standard deviations (SDs) are presented for prospective EFL teachers' perceptions of their competencies in various 21st century skills. The mean score for item 5, which assesses the perceived competency in using technologies, communication/network tools, and social network as a tool to access information, is 4.79 (SD = 0.42), indicating that the prospective EFL teachers perceive themselves to be highly skilled in this area. Similarly, the mean score for item 3, which assesses the perceived competency in using technology as a tool in researching, organizing, evaluating and communicating information, is 4.76 (SD = 0.44), indicating high perceived competency in this skill as well. However, the prospective EFL teachers believe that they are least skilled at completing multiple tasks at the same time (item 7), with a mean score of 3.88 (SD = 0.74). This suggests that they perceive this skill as a weaker area for them.

Additionally, the skill of being an active role model in guiding others (item 10) was perceived as another weaker area, with a mean score of 4.03 (SD = 0.85). The standard deviation values indicate the degree of variability in the responses, suggesting that there is some variability in the perceived competencies of the prospective EFL teachers in these 21st century skills.

Foundation University: Interview Results

The interview data of the prospective EFL teachers' interview data, who are studying at the foundation university, was analyzed to identify main themes and sub-themes. There was a total of 10 prospective EFL teachers studying at the foundation university who participated in the semi-structured interview. Perceptions of the prospective EFL teachers are presented in Table 20, which highlights the main themes and sub-themes of the most important 21st century skill(s) that an English teacher should have.

Table 20

Most Important 21st Century Skills: Foundation University Prospective EFL Teachers

21 st century themes	Skills	<i>f</i>
Learning and Innovation Skills	Creativity and Innovation	4
	Critical Thinking	0
	Problem Solving	2
	Communication	3
	Collaboration	1
Information, Media and Technology Skills	ICT literacy	2
Life and Career Skills	Flexibility and adaptability	2
	Initiative and self-direction	0
	Social and Cross-cultural	0

21 st century themes	Skills	<i>f</i>
	Skills	
	Productivity and Accountability	0
	Leadership and Responsibility	1

As can be seen in Table 20 prospective EFL teachers identified the following skills as the most important 21st century skills: creativity and innovation ($f = 4$), problem solving ($f = 2$), communication ($f = 3$) and collaboration ($f = 1$). Under the theme of LIS, participants emphasized the importance of these skills in the EFL teaching context. For example, PS10 stated that creativity is essential for an English teacher, while PS13 highlighted the significance of problem solving. Additionally, PS7 noted that staying updated with technology as a teacher impacts students' learning motivation. Critical thinking, creativity, collaboration, and problem-solving skills were identified as enabling students to question, contributing to the development of these skills (PS10).

The theme of IMTS included ICT literacy as the most important skill according to the prospective EFL teachers ($f = 4$). Participants recognized the use of technology (PS8) and the role of media (PS11) in their statements. Within the LCS theme, flexibility and adaptability skills were identified as crucial by two participants. Furthermore, one prospective EFL teacher emphasized the significance of leadership and responsibility skills. However, no participants considered initiative

and self-direction, social and cross-cultural, and productivity and accountability skills as the most important 21st century skills.

Table 21 presents the opinion of the prospective EFL teachers about the reasons for the most important 21st century skills that an English teacher should have.

Table 21

Reason of Importance: Foundation University Prospective EFL Teachers

Emergед themes	Sub-themes	<i>f</i>
Being a good teacher	Communication with students	1
	Learning motivation of students	4
	Being up to date	3
	To be able to understand students	1
	Making the lesson interesting for students	1
	Enabling students to question	1
	Motivating future students in using 21 st century skills	1
	Providing a common education for all students	1
Technology	Use of technology	1

Table 21 shows the opinion of the prospective EFL teachers at the State university. As for the reasons for the most important 21st century skills are found to be communication with students ($f = 1$), learning motivation of students ($f = 4$), being up to date ($f = 3$) to be able to understand students ($f = 1$), making the lessons interesting for students ($f = 1$), enabling students to question ($f = 1$), motivating future students in using 21st century skills ($f = 1$), and providing a common education

for all students ($f = 1$) under the theme of being a good teacher. In addition, other sub-themes emerged according to the answers of the prospective EFL teachers as the reason of importance which is the use of technology ($f = 1$) under the main theme of technology. According to PS12, there are noticeable differences between their own educational experiences and the intelligence development and environmental factors of current students. He/she stated that an English teacher, or any teacher for that matter, should possess an understanding of education that is relevant to the present age. This understanding encompasses the ability to adapt teaching methods to meet the needs of contemporary learners for him/her. Hence, PS5 stated that a teacher should be able to possess the ability to lead students towards their objectives, offering guidance and support whenever they encounter challenges or difficulties in specific subjects or skills. In addition, PS7 perceived that teachers who are not well-versed in technology may struggle to effectively engage and collaborate with today's children. The quote suggests that technological proficiency is crucial for fostering productive interactions with students in the modern era.

By looking at the frequency of the main themes, it can be said that most of the prospective EFL teachers who are studying at a foundation university perceive that BGT is the reason for having 21st century skills. Prospective EFL teachers reported that in using and integrating these skills in meeting the demands of their departments as students, whether in the context of lesson planning, material preparation, or technological integration, they perceive themselves as fairly competent.

Based on responses to the second interview question, Table 22 provides a general summary of the extent to which future EFL teachers at a state university perceive themselves competent utilizing 21st century skills.

Table 22

Competency in Using 21st Century Skills: Foundation University Prospective EFL Teachers

21 st century themes	Skills	<i>f</i>
Learning and Innovation Skills	Creativity and Innovation	2
	Critical Thinking	0
	Problem Solving	1
	Communication	0
	Collaboration	0
Information, Media and Technology Skills	ICT skills	3
Life and Career Skills	Flexibility and adaptability	0
	Initiative and self-direction	1
	Social and cross-cultural skills	1
	Productivity and accountability	0
	Leadership and responsibility	1
All themes	All 21 st century skills	2

Table 22 presents that the skills in which some prospective EFL teachers perceive themselves as competent. These are all 21st century skills ($f = 2$), creativity ($f = 2$), problem solving ($f = 1$), ICT skills ($f = 3$), initiative and self-direction ($f = 1$), social and cross-cultural skills ($f = 1$), and leadership and responsibility ($f = 1$). The skills that are not mentioned as being competent by any of the prospective EFL teachers are critical thinking, communication, collaboration, flexibility and adaptability, and productivity and accountability skills. PS9 stated that they have encountered and developed all of the mentioned skills through the courses they have taken in their department, indicating a sense of preparedness in these areas. In

contrast, PS7 highlighted his/her competency in creative thinking, emphasizing his/her ability to generate innovative ideas. PS10 confidently asserted his/her proficiency in technology, highlighting his/her adeptness in utilizing technological tools for educational purposes. Furthermore, PS5 emphasized the utilization of leadership skills throughout ELT department courses, considering himself/herself to be a strong and effective leader.

On the other hand, some of the EFL teachers perceive that they need to improve themselves in using 21st century skills such as critical thinking, problem solving, communication and collaboration, flexibility and adaptability skills. Hence, one prospective EFL teacher (SS15) stated that he/she needs to improve all skills. Overall, the findings suggest that these prospective ELT teachers have a high level of competency in using 21st century skills, but also recognize the need for continued development in these areas. Table 23 illustrates the main themes and sub-themes to be able to better understand the explained results of the perceptions of prospective EFL teachers about their competencies that are considered as needs improvement in using 21st century skills which they think are necessary to be improved.

Table 23

21st Century Skills That Needs Improvement: Foundation University Prospective

EFL Teachers

21 st century themes	Skills	<i>f</i>
Learning and Innovation Skills	Creativity and Innovation	0
	Critical Thinking	0
	Problem Solving	0
	Communication	1
	Collaboration	1

21 st century themes	Skills	<i>f</i>
Information, Media and Technology Skills	ICT skills	0
Life and Career Skills	Flexibility and adaptability	0
	Initiative and self-direction	0
	Social and cross-cultural skills	0
	Productivity and accountability	0
	Leadership and responsibility	0
All themes	All 21 st century skills	1

In Table 23 it can be understood that the skills that are found to need improvement are all 21st century skills ($f = 1$), critical thinking ($f = 1$), communication ($f = 1$), collaboration ($f = 2$), and flexibility and adaptability ($f = 1$). One of the prospective EFL teachers (PS14) perceived a general lack of confidence in his/her overall 21st century skills competence. PS4 identified problem solving and critical thinking skills that he/she feel the need of improvement. Additionally, PS4 admits to struggling with flexibility, indicating a perceived deficiency in this particular skill. Further, it is evident that none of the prospective EFL teachers have stated if they are competent in using creativity, critical thinking, problem solving, ICT skills, and LCS.

In addition, prospective EFL teachers were asked about the most common 21st century skills that they utilize in the classes they take in their department. Table 24 shows the main themes and sub-themes of the commonly utilized 21st century skills.

Table 24*Most Common Skills: Foundation University Prospective EFL Teachers*

21 st century themes	Sub-themes	<i>f</i>
Learning and Innovation Skills	Creativity and Innovation	5
	Critical thinking	2
	Problem solving	2
	Communication	1
	Collaboration	0
Information, Media and Technology Skills	ICT literacy	2
Life and Career Skills	Flexibility and adaptability	1
	Initiative and self-direction	1
	Social and cross-cultural skills	1
	Productivity and accountability	0
	Leadership and responsibility	0

In Table 24 it is seen that the prospective EFL teachers who are studying in the foundation university identified the following skills as the most common ones that they utilize: creativity and innovation ($f = 5$), critical thinking ($f = 2$), problem solving ($f = 2$), communication ($f = 1$), ICT literacy ($f = 2$), flexibility and adaptability ($f = 1$), initiative and self-direction ($f = 1$), and social and cross-cultural skills ($f = 1$). Creativity and innovation are highlighted by one of the prospective EFL teachers (PS11), indicating an understanding of their significance in cultivating engaging and dynamic learning environments. Another prospective teacher (PS9) acknowledged the importance of critical thinking and problem solving as integral

skills within the broader theme of learning and innovation. In addition, one of them (PS1) emphasizes the utilization of information, media, and technology skills, along with media literacy skills, in their classroom instruction. It is worth noting that, in contrast, one teacher (PS10) expresses a differing perspective, suggesting a lack of preference for collaboration and communication skills among his/her peers.

Furthermore, in relation to the interview question, PS5 Stated that, in the field of ELT, having collaboration and communication skills is a must. Hence, the skills that are not mentioned by any of the prospective EFL teachers are collaboration, productivity and accountability, and leadership and responsibility skills.

To be able to better understand the explained results about prospective EFL teachers' encouragement in using 21st century skills in their departmental classes, Table 25 presents the main themes and sub-themes.

Table 25

Encouragement in Using 21st Century Skills: Foundation University Prospective EFL Teachers

Emergед themes	Sub-themes	<i>f</i>
Group work	Collaboration	2
	Peer interaction	1
Being a good teacher	Teaching successfully	4
	To motivate future students to learn English	1
	Teacher qualification	1
Inner-self	Inner motivation	3
Undergraduate education	Instructors' encouragement	4

Table 25 illustrates that the main themes and sub-themes that emerged according to the responses given to the situations that encourage pre-service English teachers to use their 21st century skills. These are: collaboration ($f = 2$), peer interaction ($f = 1$) under the main theme of group work, becoming a good teacher ($f = 4$), to motivate future students to learn English ($f = 1$), and teacher qualification ($f = 1$) under the main theme of being a good teacher. In addition, inner motivation ($f = 3$) under the main theme of inner-self and instructors' encouragement ($f = 4$) under the main theme of undergraduate education are the other mentioned sources of encouragement in using 21st century skills for the prospective EFL teachers. One of the prospective EFL teachers (PS1) emphasized the positive impact of group work in fostering the application of these skills within the classroom context. Another one (PS12) expressed a strong desire to utilize and develop these skills in order to provide enhanced education and equip his/her future students with the necessary tools for their future. The motivation to use 21st century skills is further highlighted by a prospective EFL teacher (PS9), who emphasizes the importance of student engagement, understanding, and practical application of the taught concepts. Drawing inspiration from teachers, PS14 highlighted the role of academics as exemplars and sources of motivation in utilizing these skills.

Lastly, to be able to better understand the explained results, Table 26 on the next page was prepared to illustrate the main themes and sub-themes of prospective EFL teachers' competency in reflecting on 21st century skills in their written and oral assignments.

Table 26

Competency in Reflecting On 21st Century Skills: Foundation University Prospective EFL Teachers

21 st century themes	Sub-themes	<i>f</i>
Communication (Written)	Competent	7
	Needs improvement	3
Communication (Oral)	Competent	5
	Needs improvement	5

It can be seen in Table 26 that seven participants perceived themselves as being competent in reflecting on the 21st century skills in their written assignments while three of them believed they needed improvement. For the competency in using 21st century skills in terms of oral assignments, four participants perceived themselves as competent, but five participants perceived themselves that they needed to improve their oral communication competency. One of the prospective EFL teachers (PS1) perceived the importance of feeling competent and confident in the content, as it enables him/her to utilize the 21st century skills more effectively in both his/her written and oral assignments. Reflecting on his/her critical thinking ability, another prospective teacher (PS8) stated that he/she demonstrates this skill in his/her oral assignments. However, one participant (PS12) expressed a limitation in reflecting 21st century skills in his/her assignments, indicating a need for further development in this area. On the other hand, one of them (PS9) perceived the comprehensive integration of learning and innovation skills in his/her assignments,

emphasizing the intentional use of these skills in both written and oral tasks. Lastly, one participant (PS14) perceived a lack of competence specifically in oral assignments.

In addition, PS1 Stated that if he/she had background knowledge and researched about a subject that needed to be addressed by using 21st century skills, it could make him/her feel competent in using these skills. PS8 Stated that there were no related courses to 21st century skills in their department. He/she thought there might be courses with different implementations in relation to 21st century skills. PS8 also mentioned that the interview was the source where he/she learnt about 21st century skills.

Effect of the University Type

To investigate whether the total mean scores of the sub-dimensions in the Scale for Determining Prospective EFL Teachers' Perceptions of Having 21st century Skills varied based on the type of universities attended by the prospective EFL teachers, an Independent Samples T-Test was performed. This statistical analysis aimed to provide insights into how the perception of 21st century skills among prospective EFL teachers differed based on their university type.

T-test Results

An independent sample t-test was performed to investigate whether there were significant differences in the total scores of 21st century skills, as measured by the Scale for Determining the Perceptions of Having 21st century Skills, between prospective EFL teachers based on the type of university they attended. Table 27 shows the T-Test results of the prospective EFL teachers' perceptions of having 21st century skills by university type.

Table 27*T-Test Results: Prospective EFL teachers' Total Scores by University Type*

University	<i>n</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	<i>p</i>
State	69	79.04	8.90	100	-1.26	.211
Foundation	33	81.36	8.25			

As demonstrated in Table 27, none of the t-tests conducted were not statistically significant, indicating that the type of university attended by prospective EFL teachers did not significantly impact their perceptions of having 21st century skills.

Findings Based on the Interview Data

Based on the responses of prospective EFL teachers to the interview question about their competencies in using 21st century skills, based on the P21 framework definitions, the data were analyzed resulting in the identification of a main theme of competency and several sub-themes. These sub-themes included; all 21st century skills, creativity, critical thinking, problem solving, communication, collaboration, ICT skills, flexibility and adaptability, initiative and self-direction, social and cross-cultural skills, and leadership and responsibility.

Table 28 was prepared to illustrate the main themes and sub-themes of the difference of prospective EFL teachers' perceptions on competency in using the 21st century skills in the classes they take in their department.

Table 28

Difference Between 21st Century Skills Competencies: Prospective EFL Teachers by University Type

Emergед theme	Sub-themes (21 st century themes)	<i>f</i>	
		State university	Foundation university
Competent	Creativity and Innovation	1	3
	Critical thinking	0	0
	Problem solving	1	1
	Communication	1	1
	Collaboration	1	0
	ICT literacy	2	4
	Flexibility and adaptability	0	0
	Initiative and self-direction	0	2
	Social and cross-cultural skills	0	2
	Leadership and responsibility	2	1
	All skills	1	2

It can be seen in Table 28 that both state and foundation university prospective EFL teachers perceive themselves as being competent in using 21st century skills in their classes, with a focus on all 21st century skills, creativity, ICT skills, and leadership and responsibility skills. All 21st century skills were mentioned by both state university students ($f = 1$) and foundation university students ($f = 2$). Creativity was mentioned by State university students ($f = 1$) and foundation university students

($f = 3$). Critical thinking and flexibility and adaptability were not mentioned by any of the participants. Problem solving was mentioned by State university students ($f = 1$) and foundation university students ($f = 1$). Communication was mentioned by State university students ($f = 1$) and foundation university students ($f = 1$). Collaboration was mentioned by state university students ($f = 1$) and not mentioned by foundation university students. ICT skills were mentioned by state university students ($f = 2$) and foundation university students ($f = 4$). Initiative and self-direction was mentioned by foundation university students ($f = 2$) and not mentioned by state university students. Social and cross-cultural skills were mentioned by foundation university students ($f = 2$) and not mentioned by state university students. Leadership and responsibility was mentioned by state university students ($f = 2$) and foundation university students ($f = 1$).

The number of participants who mentioned each sub-theme varied between state and foundation universities, with some sub-themes being more commonly mentioned by participants from one type of university over the other. For example, foundation university students were more likely to mention all 21st century skills ($f = 2$), creativity ($f = 3$), ICT skills ($f = 4$), initiative and self-direction ($f = 2$), and social and cross-cultural skills ($f = 2$), while state university students were more likely to mention leadership and responsibility skills ($f = 2$). In terms the perceptions differed according to university type, it appears that foundation university students generally had a higher level of confidence in their competencies, as indicated by the higher number of sub-themes mentioned by this group.

Additionally, the results of the T-test indicate that there is no significant difference in the total scores of the prospective EFL teachers at the state university and the foundation university. Both groups of prospective EFL teachers scored

similarly on this measure, suggesting that they have similar levels of perceived competency in using 21st century skills in their classes. Overall, the data suggest that both state and foundation university prospective EFL teachers feel competent in using 21st century skills in their classes, with a focus on a range of skills including communication, collaboration, and the use of technology.

Table 29 was prepared to illustrate the main themes and sub-themes of the difference of prospective EFL teachers' perceptions on the need for improvement in using the 21st century skills in the classes they take in their department.

Table 29

Difference Between 21st Century Skills Competencies: Prospective EFL Teachers by University Type

Emerg ed theme	Sub-themes (21 st century themes)	<i>f</i>	
		State university	State university
Needs improvement	Creativity and Innovation	1	0
	Critical thinking	2	1
	Problem solving	1	1
	Communication	0	1
	Collaboration	0	2
	ICT literacy	0	0
	Flexibility and adaptability	0	1
	Initiative and self-direction	0	0
	Social and cross-cultural skills	0	0
	Leadership and responsibility	0	0
	All skills	1	1

As can be seen in Table 29, both state and foundation university prospective EFL teachers identified three common themes that need improvement in using; all 21st century skills, critical thinking and problem-solving skills. Among these, critical thinking was emphasized more among prospective EFL teachers who are studying at the state university. Creativity and innovation skills were mentioned only by one of the prospective EFL teachers who are studying at the state university. Hence, communication ($f=1$), collaboration ($f=2$), and flexibility and adaptability ($f=1$) skills were mentioned only by one of the prospective EFL teachers who are studying at the foundation university. However, ICT, initiative and self-direction, social and cross-cultural, and leadership and responsibility skills were not identified by none of the prospective teachers as a skill that needs improvement. As seen from the data, prospective EFL teachers studying at the foundation university identified more diverse skills that require improvement in comparison to prospective EFL teachers who are studying at the state university.

ELT Department Academics Perceptions

In the present study, ELT department academics' perceptions on their students' 21st century skills competencies were inquired. Findings of the data analysis of the ELT department academics responses are presented below under four sub-topics, such as state university, foundation university and the effect of the university type, respectively.

State University: Descriptive Analysis Results

The answers of the ELT department academics who teach at a state university descriptively analyzed looking at the sub-dimensions in the framework, namely, Life and Career Skills (LCS), Information, Media and Technology Skills (IMTS), and

Learning and Innovation Skills (LIS). Table 30 below presents the Means and Standard Deviations for each sub-dimension.

Table 30

Overall Descriptive Analysis: State University ELT Department Academics

Sub-dimension	<i>N</i>	<i>M</i>	<i>SD</i>
Life and Career Skills	7	3.49	0.28
Information, Media and Technology Skills	7	3.84	0.29
Learning and Innovation Skills	7	3.24	0.71

When Table 30 is examined, it is seen that the mean score obtained from the Life and Career skills sub-dimension is 3.49 (SD = 0.28). Considering that the maximum score that can be obtained from this scale for each sub-dimension is 5; It is seen that the score obtained from the information, media and technology skills sub-dimension is 3.84 (SD = 0.29). Considering that the maximum score that can be obtained from this scale for each sub-dimension is 5; It is seen that the mean score obtained from the Learning and Innovation skills sub-dimension is 3.24 (SD = 0.71). Considering that the maximum score that can be obtained from this scale for each sub-dimension is 5, it is seen that the students have an average of approximately 2 standard deviations for the first and second sub-dimension above. However, it is observed that the third sub-dimension (learning and innovation skills) is closer to the average score that can be obtained from this scale.

When the descriptive analysis was conducted for each item in the scale, it was observed that overall ELT department academics who teach at a state university perceive their students to be somewhat competent in almost all LCS and LIS and

quite competent in IMTS showing higher competency in certain skills compared to others. Table 31 below presents the means and standard deviations for each question in the scale.

Table 31

Descriptive Analysis: State University ELT Department Academics for Each Item
(N=7)

	Scale items	M	SD
1	I can express myself effectively in different forms and contexts.	3.43	0.53
2	I understand how and for what purpose media messages are created.	4.00	0.58
3	I use technology as a tool in researching, organizing, evaluating and communicating information.	3.29	0.49
4	I influence and direct others towards a specific goal.	4.43	0.53
5	I use digital technologies, communication/network tools and social networks as a tool to access information.	3.57	0.53
6	I assert my dignity in the environments I am in.	3.00	1.00
7	I successfully complete multiple tasks at the same time.	3.14	0.90
8	I guess how much the issues covered by the media influence behavior.	3.86	0.90
9	I am open to new ideas.	3.14	1.07
10	I see myself as an active role model in guiding others.	3.86	0.38
11	I can communicate effectively in environments with different cultural characteristics.	4.00	0.58
12	I add a positive effect to the environment I am in.	3.86	0.38
13	I work effectively in environments with different cultural characteristics.	3.43	0.53
14	I turn new ideas into practice in a short time.	3.00	0.82
15	I see criticism as an opportunity to improve myself.	2.86	0.69

	Scale items	M	SD
16	I approach every problem thinking that it has a solution.	4.29	0.49
17	I make effective use of media technologies.	3.14	0.90
18	I would guess how much the issues ignored by the media influence behavior.	4.29	0.49
19	I use the information I obtain by using digital technologies, communication/network tools and social media in a way that suits me.	3.43	0.53

As can be seen in Table 31, ELT department academics who teach at a state university perceive their students' competency in using digital technologies, communication/network tools and social networks as a tool to access information (item 5) as a 21st century skill and making effective use of media technologies (item 19) to be the two 21st century skills that they are the most strong at with a mean of 4.43 (SD = 0.53) and 4.29 (SD = 0.49) respectively. On the other hand, ELT department academics believe that the 21st century skills in approaching every problem thinking that it has a solution (M = 2.86 and SD = 0.69) and successfully completing multiple tasks at the same time (M = 3.00 and SD = 1.00) were the skills that they were least skilled at.

State University: Interview Results

The qualitative data based on the interview with the ELT department academics who are teaching at the state university, was analyzed to identify themes and sub-themes. They were asked to identify the most important 21st century skills that an English teacher should have. A total of 11 ELT department academics (7 from the state university, 4 from the foundation university) took part in the interview. All of the main themes, sub-themes, frequencies and quotes in line with the results of the interview data are given in Appendix F. To be able to better understand the

explained results, Table 32 was prepared to illustrate the main themes and sub-themes of the most important 21st century skills.

Table 32

Most Important 21st Century Skills: State University ELT Department Academics

21 st century themes	Sub-themes	<i>f</i>
Learning and Innovation Skills	Creativity and Innovation	3
	Critical Thinking	2
	Problem Solving	1
	Communication	1
	Collaboration	1
Information, Media and Technology Skills	ICT literacy	2
Life and Career Skills	Flexibility and adaptability	1
	Initiative and self-direction	0
	Social and Cross-cultural Skills	0
	Productivity and Accountability	0
	Leadership and Responsibility	0
All skills	—	4

As can be seen in table 32, some of the ELT department academics who are teaching at the state university identified the following skills as the most important ones under the main theme of learning and innovation skills; creativity and innovation ($f = 3$), critical thinking ($n = 2$), problem solving ($f = 1$), communication

($f = 1$) and collaboration ($f = 1$), and all skills ($f = 4$). Under the main theme of life and career skills, the only identified important skills was flexibility and adaptability ($f = 1$). One of the ELT department academics (SA5) perceived the significance of all 21st century skills, suggesting that they all hold value in the modern educational context. Another academic (SA7) similarly acknowledged the importance of all the skills, affirming their collective relevance in preparing students for the 21st century. Regarding specific skills, an academic (SA2) identified creative thinking, flexibility, and technology use as crucial skills of the 21st century. Additionally, another ELT department academic (SA11) highlighted the significance of ICT literacy, particularly in contemporary classrooms. Further, none of the ELT department academics mentioned initiative and self-direction, social and cross-cultural skills, productivity and accountability and leadership and responsibility skills specifically.

Table 33 presents the main themes and sub-themes emerged showing why the state university ELT department academics identified certain 21st century skills as important.

Table 33

Reason of Importance: State University ELT Department Academics

Emerg ed themes	Sub-themes	<i>f</i>
Being a good teacher	Being up to date	2
	Classroom management	2
	Communication as a skill	1
	Professional development	2
Technology	Use of technology	1
Student development	Student progress	1

It can be seen in Table 33 that for the reasons for importance of the mentioned skills, can be listed as being up to date ($f = 2$), classroom management ($f = 2$), communication skills ($f = 1$), and professional development ($f = 2$) under the main theme of being a good teacher. In addition, under the main theme of technology, use of technology ($f = 1$) and under the main theme of student development, student progress ($f = 1$) were stated by the ELT department academics. One of the ELT department academics (SA2) perceived the need for teachers to adapt to technological advancements and stay updated with recent innovations. SA2 also highlighted the importance of utilizing creativity to overcome challenges and solve problems that may arise in the classrooms. Another academic (SA9) perceived that although information is readily available due to technological developments, the ability to interpret, infer, and critically approach the information is crucial. This highlights the importance of developing skills in information literacy and critical thinking. Collaboration skill is also emphasized by one of the academics (SA7) as a vital aspect for language teachers and the overall growth of their students.

In the light of the research question one, ELT department academics were asked about their students' competencies in using 21st century skills. Table 34 presents the overall summary of the perceptions of the ELT department academics' perceptions teaching at the state university.

Table 34

Competency in Using 21st Century Skills: State University ELT Department Academics

Emergед themes	Sub-themes	<i>f</i>
Competency	Creativity	0
	Critical Thinking	0

Emergед themes	Sub-themes	<i>f</i>
	Problem Solving	0
	Communication	1
	Collaboration	0
	ICT skills	6
	Flexibility and adaptability	3
	Initiative and self-direction	0
	Social and cross-cultural skills	0
	Productivity and accountability	0
	Leadership and responsibility	0

It can be seen in Table 34 that the skills that ELT department academics mentioned the following skills while talking about the skills that they believe their students are competent at: Communication ($f = 1$), ICT skills ($f = 6$), and flexibility and adaptability ($f = 3$). As seen in the table, ICT skills is the most frequently mentioned 21st century skill by the ELT department academics. On the other hand, none of the ELT department academics mentioned creativity, critical thinking, problem solving, collaboration, initiative and self-direction, social and cross-cultural, productivity and accountability and leadership and responsibility skills. One of the ELT department academics (SA10) perceived the importance of clear communication and effective collaboration, acknowledging the strengths of students in these areas. Another academic (SA2) emphasized the digital native status of the current generation, noting their proficiency in technology and their ability to communicate clearly and engage socially. The digital literacy of students is also

recognized by an academic (SA5), who perceived that his/her students' competencies in IMTS are strong. The flexibility and adaptability skills of prospective EFL teachers were also acknowledged by an academic (SA10), highlighting their readiness to navigate and embrace changes.

However, they also mentioned about the skills that could be improved. Table 35 illustrates the main themes and codes to be able to better understand the explained results of the perceptions of ELT department academics about their students' competencies in using 21st century skills which they think are necessary to be improved.

Table 35

Competency in Using 21st Century Skills: State University ELT Department Academics

Emergед themes	Sub-themes	<i>f</i>
Needs improvement	Creativity and Innovation	1
	Critical Thinking	3
	Problem Solving	1
	Communication	2
	Collaboration	3
	ICT skills	2
	Flexibility and adaptability	0
	Initiative and self-direction	1
	Social and cross-cultural skills	1
	Productivity and accountability	0
	Leadership and responsibility	0

Emergед themes	Sub-themes	<i>f</i>
Effects on student competency (What are the influences or effects on students' use of 21 st century skills)	Instructors influence (Designing classrooms that students are able to show their skills)	5

As shown in Table 35, the skills that were mentioned as the skills that need improvement are creativity and innovation ($f = 1$), critical thinking ($f = 3$), and problem solving ($f = 2$), communication ($f = 2$), collaboration ($f = 3$), ICT skills ($f = 2$), initiative and self-direction ($f = 1$), and social and cross-cultural ($f = 1$) skills. One of the emerged sub-themes is the instructors' influence ($f = 5$) on designing classrooms that allow students to demonstrate their skills. One of the ELT department academics (SA11) perceived that his/her students struggle when engaging in tasks that require critical thinking and creativity. Another academic (SA5) expressed concerns about students' ability to make informed judgments and decisions, indicating potential limitations in their critical thinking and problem-solving skills. Collaboration and communication skills are questioned by an academic (SA1), suggesting that both students and the university face challenges in fostering these skills effectively. The use of technology for educational purposes is recognized as a potential disadvantage by an academic (SA2), mentioning that students may not possess sufficient preparation or proficiency for formal educational contexts. Furthermore, an academic (SA5) perceived the need to shift from a teacher-centered approach to a student-centered approach in the education system, emphasizing the importance of involving students in decision-making processes and encouraging academics to share power with students in the classroom.

Moreover, ELT department academics stated that the education system in schools is not enough to develop students' 21st century skills, and they emphasized the importance of student-centered learning environments. They pointed out that classrooms should be designed to invite students into decision-making and to share power with them. This sub-theme highlights the significant role that instructors play in creating a positive learning environment that supports the development of students' competencies in using 21st century skills. Further, none of the ELT department academics mentioned the need for improvement for flexibility and adaptability, productivity and accountability and leadership and responsibility skills. Hence, in terms of media literacy skills, SA10 and SA11 mentioned that considering the competency in finding a reliable source and using it to create something new is one of the areas that need improvement for their students.

In addition, ELT department academics were asked about the most common 21st century skills that their students utilize in their classes. To be able to better understand the explained results, Table 36 was prepared to illustrate the main themes and sub-themes of the commonly utilized 21st century skills.

Table 36

Most Common Skills: State University ELT Department Academics

21 st century themes	Sub-themes	<i>f</i>
Learning and Innovation Skills	Creativity and Innovation	3
	Critical thinking	0
	Problem solving	1
	Communication	3
	Collaboration	3

21 st century themes	Sub-themes	<i>f</i>
Information, Media and Technology Skills	ICT literacy	6
Life and Career Skills	Flexibility and adaptability	1
	Initiative and self-direction	0
	Social and cross-cultural skills	1
	Productivity and accountability	0
	Leadership and responsibility	0

As shown in table 36, ELT department academics who teach at the state university identified the following skills as the most common ones that their students utilize in their classes: creativity and innovation ($f = 3$), problem solving ($f = 1$), communication ($f = 3$), collaboration ($f = 3$) under the main theme of learning and innovation skills, and ICT literacy ($f = 6$) under the main theme of information, media and technology skills.

Further, flexibility and adaptability ($f = 1$), and social and cross-cultural ($f = 1$) skills were mentioned under the main theme of life and career skills. Hence, the most common emphasized skill among the ELT department academics is the use of ICT literacy. One of the ELT department academics (SA6) perceived the significance of innovation skills, particularly in micro-teaching activities, where their students need to create engaging and interactive materials. Communication and collaboration skills are highlighted by another academic (SA7) who frequently assigns group work, recognized the importance of these skills for effective teamwork. The ability to collaborate and generate ideas is also emphasized by another ELT department

academic (SA6) as they observe students using collaboration skills to prepare teaching materials and take notes. Furthermore, the integration of ICT literacy is recognized by another academic (SA11) who acknowledged that students frequently utilize ICT tools in their teaching practices. However, none of the ELT department academics mentioned critical thinking, initiative and self-direction, productivity and accountability, and leadership and responsibility skills as the most common skills that their students utilize.

ELT department academics were also asked about what they do to encourage their students to use 21st century skills in their classes. To be able to better understand the explained results, Table 37 was prepared to illustrate the main themes and sub-themes of ELT department academics' encouragement to make their students use 21st century skills.

Table 37

Encouragement to Use 21st Century Skills: State University ELT Department Academics

Emergед themes	Sub-themes	<i>f</i>
Group work	Peer collaboration	4
Motivating students	Showing the necessity of the skills	2
	Use of media and other sources in the classroom	2
	Encouragement	2
Instructional strategies	Open discussions	2
	Giving assignments	4

Emerg ed themes	Sub-themes	<i>f</i>
	Reflections	1

Table 37 provides valuable insights into the strategies used by ELT academics to encourage their students to develop 21st century skills, and the quotes offer concrete examples of how they implement these strategies in their classrooms. The themes and sub-themes that emerged according to the responses given to the encouragement to make prospective EFL teachers use 21st century skills are as follows: peer collaboration ($f = 4$), showing the necessity of the skills ($f = 2$), use of media and other sources in the classroom ($f = 2$), and encouragement ($f = 2$) under the main themes of group work and motivation students. Hence, open discussions ($f = 2$), giving assignments ($f = 4$), and reflections ($f = 1$) are the other sub-themes emerged under the main theme of instructional strategies. One of the ELT department academics (SA2) perceived the importance of communication in language learning and teaching, particularly through pair work and group work, as language serves as a tool for effective communication. He/she encourage students to actively participate in group activities to enhance their communication skills. Another academic (SA6) stated that he/ she introduces 21st century skills at the beginning of each semester, using concrete examples from the EFL classroom to engage students' understanding. By presenting both positive and negative examples, he/she aims to create awareness of what constitutes 21st century skills. IMTS are addressed by an academic (SA5) who takes a learner-centered approach, inviting students to educate and share digital tools and resources with the class. Collaborative learning is promoted by another academic (SA10) through debate activities, where students work together in groups to discuss argumentative topics. This approach

enhances their collaboration and critical thinking skills. Creativity is fostered by one of the academics (SA5) who encourages students to think outside the box and develop innovative teaching materials, assigning spontaneous assignments that cannot be simply copied or found. Reflective practice plays a significant role in cultivating critical thinking and creativity, as highlighted by another academic (SA11) who integrates reflective papers into various classroom activities, prompting students to critically analyze their own work and the presentations of their peers. In addition, it is important to mention that while the responses provided indicate that ELT department academics encourage their students to work collaboratively in groups, it should be noted that some students are not enthusiastic about it and require coercion, as mentioned by SA10.

Lastly, ELT department academics were also asked about their students' competency in reflecting on the 21st century skills in their written and oral assignments. Table 38 provides information on the competency of ELT department students in reflecting on 21st century skills in their written and oral assignments. The table includes emerged themes, sub-themes, and their frequencies. The main theme as one of the 21st century themes and sub-themes indicate whether students are competent or need improvement in reflecting on 21st century skills.

Table 38

Competency in Reflecting On 21st Century Skills: State University ELT Department Academics' Perceptions

21 st century themes	Sub-themes	<i>f</i>
Communication (Written)	Competent	3
	Needs improvement	4

Communication	Competent	3
(Oral)	Needs improvement	3

It can be seen in Table 38 that for written assignments, three ELT department academics identified their students as being competent in expressing themselves both orally and in written format. However, four academics identified a need for improvement, indicated that students tend to copy and paste information from the internet without questioning the source. Additionally, some students struggle with reflecting on creativity, innovation, critical thinking, and problem-solving in their written assignments.

Regarding oral assignments, three ELT department academics identified their students as being competent in using communication and collaboration. However, three academics identified a need for improvement in terms of their students' ability to communicate clearly and organize their ideas while delivering a speech. One of the ELT department academics (SA9) perceived the overall competence of the prospective EFL teachers, noting their continuous improvement over time. However, another academic (SA10) highlighted a concern regarding the tendency of students to rely on copying and pasting information from the internet without critically evaluating the sources. On the other hand, an academic (SA11) recognized the competency of his/her students in oral assignments, emphasizing their strengths in communication and collaboration. However, challenges arise in the areas of collaboration and clear communication, as observed by another academic (SA10). SA10 perceived that students face difficulties in organizing their ideas and effectively delivering speeches during presentations.

Foundation University: Descriptive Analysis Results

The answers of the ELT department academics who teach at a foundation university descriptively analyzed looking at the sub-dimensions in the framework, namely, Life and Career Skills (LCS), Information, Media and Technology Skills (IMTS), and Learning and Innovation Skills (LIS). Table 39 presents the means and standard deviations for each sub-dimension.

Table 39

Overall Descriptive Analysis: Foundation University ELT Department Academics

Sub-dimension	<i>N</i>	<i>M</i>	<i>SD</i>
Life and Career Skills	7	3.1	0.75
Information, Media and Technology Skills	7	3.47	0.90
Learning and Innovation Skills	7	3.19	0.66

When table 39 is examined, it is seen that the mean score obtained from the LCS sub-dimension is 3.10 (SD = 0.75) indicating that there is a relatively high degree of variability in participants' scores in this area. Considering that the average score that can be obtained from this scale is 27; It is seen that the mean score obtained from the IMTS sub-dimension is 3.47 (SD = 0.90) indicating a high degree of variability among participants' scores. Considering that the average score that can be obtained from this scale is 21. It is seen that the mean score obtained from the LIS sub-dimension is 3.19 (SD = 0.66) indicating moderate variability among participants' scores. Considering that the average score that can be obtained from this scale is 9, it is observed that all of the sub-dimensions are closer to the average score that can be obtained from this scale.

When the descriptive analysis was conducted for each item in the scale, it was observed that overall prospective EFL teachers studying at a state university perceive themselves to be somewhat competent in almost all skills showing higher competency in certain skills compared to others. Table 40 below presents the means and standard deviations for each question in the scale.

Table 40

Descriptive Analysis: Foundation University ELT Department Academics for Each Item (N=7)

	Scale items	M	SD
1	I can express myself effectively in different forms and contexts.	3.43	0.98
2	I understand how and for what purpose media messages are created.	3.43	0.98
3	I use technology as a tool in researching, organizing, evaluating and communicating information.	3.29	1.34
4	I influence and direct others towards a specific goal.	2.86	0.90
5	I use digital technologies, communication/network tools and social networks as a tool to access information.	3.43	1.13
6	I assert my dignity in the environments I am in.	4.00	0.82
7	I successfully complete multiple tasks at the same time.	3.29	1.11
8	I guess how much the issues covered by the media influence behavior.	3.43	0.98
9	I am open to new ideas.	3.71	0.76
10	I see myself as an active role model in guiding others.	3.14	0.69
11	I can communicate effectively in environments with different cultural characteristics.	2.86	0.90
12	I add a positive effect to the environment I am in.	3.14	1.22
13	I work effectively in environments with different cultural characteristics.	3.00	1.00
14	I turn new ideas into practice in a short time.	3.00	0.58
15	I see criticism as an opportunity to improve myself.	2.86	0.69
16	I approach every problem thinking that it has a solution.	4.29	0.49

	Scale items	M	SD
17	I make effective use of media technologies.	3.14	0.90
18	I would guess how much the issues ignored by the media influence behavior.	4.29	0.49
19	I use the information I obtain by using digital technologies, communication/network tools and social media in a way that suits me.	3.43	0.53

As can be seen in Table 40, ELT department academics who teach at a foundation university perceive their students' competencies in asserting respect in the environments they are in (item 6) as a 21st century skill and being open to new ideas (item 9) to be the two 21st century skills that they are the strongest at with a mean score of 4.00 (SD = 0.82) and 3.71 (SD = 0.76) respectively. On the other hand, ELT department academics believe that the 21st century skills of influencing and directing others to a specific goal (M = 2.86 and SD = 0.90), communicating effectively in environments with different cultural characteristics (M = 2.86 and SD = 0.90), approaching every problem thinking that it has a solution (M = 2.86 and SD = 0.90) and guessing how much the issues ignored by the media influence behavior (M = 2.86 and SD = 1.22) were the skills that they were least skilled at.

Foundation University: Interview Results

ELT department academics' interview data, who are teaching at the foundation university, was analyzed to identify main themes and sub-themes. There was a total of 4 ELT department academics who are teaching at the foundation university who participated in the semi-structured interview. The explained results of the perceptions of ELT department academics are presented in Table 41, which highlights the main themes and sub-themes of the most important 21st century skill(s) that an English teacher should have.

Table 41

Most Important 21st Century Skills: Foundation University ELT Department

Academics

21 st century themes	Sub-themes	<i>f</i>
Learning and Innovation Skills	Creativity and Innovation	2
	Critical Thinking	2
	Problem Solving	1
	Communication	0
	Collaboration	0
Information, Media and Technology Skills	ICT literacy	1
Life and Career Skills	Flexibility and adaptability	1
	Initiative and self-direction	1
	Social and Cross-cultural Skills	1
	Productivity and Accountability	1
	Leadership and Responsibility	1
All skills	—	2

As it is seen in table 41 that ELT department academics who are teaching at the state university identified the following skills as the most important ones: ELT department academics who are teaching at the foundation university identified the following skills as the most important ones: all skills ($f = 2$), and under the main

theme of learning and innovation skills; creativity and innovation ($f = 2$), critical thinking ($f = 1$), problem solving ($f = 1$). One of the ELT department academics (PA1) perceives that all the 21st century skills are relevant and necessary for teachers to succeed in their profession. Specifically, creativity and innovation are highlighted as crucial skills for English language teachers (PA8). Under the theme of IMTS, ICT literacy emerges as an important skill, as mentioned by one academic (PA4). He/she emphasized how the rapid advancements in technology in the 21st century have compelled foreign language teachers to adapt and integrate technology into their teaching practices. This highlights the need for English language teachers to stay abreast of technological developments and effectively incorporate them into their instructional strategies.

Under the main theme of LIS; flexibility and adaptability ($f = 1$), initiative and self-direction ($f = 1$), social and cross-cultural ($f = 1$), productivity and accountability ($f = 1$) and leadership and responsibility ($f = 1$) are the skills that are mentioned as important skills by one of the ELT department academics. One ELT department academic (PA3) emphasized the importance of LCS. Further, none of the ELT department academics mentioned communication and collaboration as the most important skills. Table 42 presents the emerged themes and sub-themes of the reason for the importance of the identified skills.

Table 42

Reason of Importance: Foundation University ELT Department Academics

Emergед themes	Sub-themes	<i>f</i>
Being a good teacher	Being able to transmit the skills to students as a teacher	1

	Being up to date	1
	Classroom management	1
Emergenced themes	Sub-themes	<i>f</i>
Student development	Student autonomy	1

Table 42 shows the reasons of importance for the mentioned skills. The sub-themes are found to be being able to transmit the skills to students as a teacher ($f = 1$), being up to date ($f = 1$) and classroom management ($f = 1$) under the main theme of being a good teacher. In addition, under the main theme of student development, student autonomy ($f = 1$) was mentioned by one of the ELT department academics. ELT department academics emphasize the importance of 21st century skills for English language teachers. They assert that these skills should be promoted and possessed by teachers in order to effectively transmit and utilize them in the classroom. According to one academic (PA1), having these skills in their repertoire is crucial for English language teachers to accomplish the requirements of their profession. Additionally, another academic (PA8) highlights the enduring significance of creativity and innovation, stating that these qualities enable teachers to overcome challenges and solve problems in the classroom. The academics also acknowledge the challenges faced by language teachers in keeping up with technology, as expressed by one academic (PS4). Lastly, they recognize the responsibility of providing students with life and career skills, as mentioned by another academic (PA3), as these skills are necessary for future job opportunities.

In light of the research question one, ELT department academics were asked about their students' competencies in using 21st century skills. Table 43 presents the overall summary of ELT department academics' perceptions teaching at the foundation university.

Table 43

Students' Competencies in Using 21st Century Skills: Foundation University ELT Department Academics' Perceptions

Emergед themes	Sub-themes	<i>f</i>
Competency	Creativity	1
	Critical Thinking	0
	Problem Solving	0
	Communication	1
	Collaboration	1
	ICT skills	3
	Flexibility and adaptability	1
	Initiative and self-direction	0
	Social and cross-cultural skills	1
	Productivity and accountability	0
	Leadership and responsibility	0

Table 43 reveals that the ELT department academics perceive their students to be competent in creativity ($f = 1$), communication ($f = 1$), collaboration ($f = 1$), ICT skills ($f = 3$), flexibility and adaptability ($f = 1$), and social and cross-cultural ($f = 1$) skills. As seen from the table, none of the ELT department academics mentioned critical thinking, problem solving, initiative and self-direction, productivity and accountability and leadership and responsibility skills. One of the ELT department academics (PA1) perceived the prospective EFL teachers as highly competent in terms of communication and collaboration. They estimate that the students deserve an overall score of approximately 80% in terms of their competencies in using technology. Additionally, PA1 also stated that he/she have encountered minimal issues with technology usage in their classes, as most students are digital natives. He/she added that this generation's exposure to technology from an early age has equipped them with media literacy, ICT literacy, and information literacy skills. Similarly, PA4 stated that he/she have not faced significant challenges in incorporating technology into their classes, attributing this ease to the students' familiarity as digital natives. PA6 perceived that technological advancements have naturally enhanced collaboration, communication, and technological competencies among all young individuals, not just those in the ELT department. In addition, it is noteworthy that the term "digital natives" was also used by the ELT department academic at the foundation university in a similar context to that of the state university academics. This further highlights the importance of considering students' proficiency in using technology and 21st century skills in language teaching.

However, they also mentioned about the skills that could be improved. Table 44 illustrates the emerged themes and sub-themes to be able to better understand the explained results of the perceptions of ELT department academics about their

students' competencies in using 21st century skills which they think are necessary to be improved.

Table 44

Prospective EFL Teachers' Competencies in Using 21st Century Skills: Foundation University ELT Department Academics' Perceptions

Main themes	Sub-themes	<i>f</i>
Needs improvement	Creativity and Innovation	1
	Critical Thinking	2
	Problem Solving	2
	Communication	0
	Collaboration	1
	ICT skills	0
	Flexibility and adaptability	1
	Initiative and self-direction	1
	Social and cross-cultural skills	1
	Productivity and accountability	1
	Leadership and responsibility	1
	All skills	1
Effects on student competency (What are the influences or effects on students' use of 21 st century skills)	Instructors influence (Designing classrooms that students are able to show their skills)	2

Table 44 shows the skills that are found to need improvement. They are; all skills ($f = 1$), creativity and innovation ($f = 1$), critical thinking ($f = 2$), and problem solving ($f = 2$), collaboration ($f = 1$), flexibility and adaptability ($f = 1$), initiative and self-direction ($f = 1$), social and cross-cultural ($f = 1$), productivity and accountability ($f = 1$), and leadership and responsibility ($f = 1$) skills. Based on the answers of the ELT department academics, the sub-theme of instructors' influence ($f = 2$) emerged in relation to designing classrooms that students are able to show their skills under the main theme of effects on student competency by means of the influences or effects on students' use of 21st century skills. In addition, none of the ELT department academics mentioned the need for improvement for communication, and ICT skills. According to PA3, the overall level of their students is not particularly high or impressive. PA1 also highlighted the students' struggles with critical thinking, indicating that there is room for improvement in this area. PA4 shared his/her observation on the students and stated that they tend to lack enthusiasm for collaboration, as they do not actively engage in collaborative efforts. PA1 expressed concern about the students' level of flexibility in terms of life and career skills, noting that they often struggle to come up with alternative plans when faced with challenges. Furthermore, PA1 and PA8 perceived that teachers may bear some responsibility for students' limited expression of creativity and innovation. They suggested that the teachers may not be creating an environment in the classroom or designing activities that effectively showcase prospective EFL teachers 21st century skills. It is implied that by modifying the classroom atmosphere and implementing suitable activities, students can better demonstrate their creative and innovative abilities.

In addition, ELT department academics were asked about the most common 21st century skills that their students utilize in their classes. Table 45 was prepared to show the 21st century themes, sub-themes, and example quotes of the most commonly utilized 21st century skills.

Table 45

Most Common Skills: Foundation University ELT Department Academics

Main themes	Sub-themes	<i>f</i>
Learning and Innovation Skills	Creativity and Innovation	1
	Critical thinking	1
	Problem solving	1
	Communication	0
	Collaboration	0
Information, Media and Technology Skills	ICT literacy	4
Life and Career Skills	Flexibility and adaptability	0
	Initiative and self-direction	0
	Social and cross-cultural skills	0
	Productivity and accountability	0
	Leadership and responsibility	0

Table 45 presents the skills identified by ELT department academics teaching at the foundation university as the most common ones that their students utilize in their classes. The skills are grouped under 21st century themes: LCS, IMTS and LIS. The most common skills identified were creativity and innovation ($f = 1$), critical thinking ($f = 1$), and problem-solving skills ($f = 1$) under the theme of LIS. Hence, the 21st century skill that received the most emphasis and was commonly identified is ICT literacy ($f = 4$) under the theme of IMTS. However, it is noteworthy that none of the ELT department academics mentioned communication and collaboration skills, as well as life and career skills in general. According to PA1, the students are mostly utilizing creativity and innovation skills, thanks to the technological means at their disposal. PA1 also perceived that prospective EFL teachers have the ability to utilize critical thinking and problem-solving skills when given the opportunity. PA1 also highlighted that the students are literate in terms of information, media, and ICT, as they are digital natives. Similarly, PA3 and PA4 also emphasized the importance of IMTS for the students, indicating that these skills are commonly used by them. Additionally, PA8 acknowledged that some students in the ELT department are more competent in technology skills compared to other 21st century skills.

ELT department academics were also asked about what they do to encourage their students to use 21st century skills in their classes. To be able to better understand the explained results, Table 46 was prepared to illustrate the emerged themes, sub-themes, and example quotes of ELT department academics' encouragement to make their students use 21st century skills.

Table 46

Encouragement to Use 21st Century Skills: Foundation University ELT Department Academics

Main themes	Sub-themes	<i>f</i>
Group work	Peer collaboration	2
	Guided instruction	2
	Speaking class	1
Motivating students	Use of media and other sources in the classroom	2
	Encouraging talks in using 21 st century skills	1
Instructional strategies	Open discussions	1
	Giving assignments	1

According to the responses received on the encouragement to make prospective EFL teachers use 21st century skills, Table 46 shows the main themes and sub-themes that emerged, including peer collaboration ($f = 2$), guided instruction ($f = 2$), and speaking class ($f = 1$) under the emerged theme of group work. Hence, use of media and other sources in the classroom ($f = 2$), and encouragement ($f = 1$) are the sub-themes that emerged under the theme of motivating students. Lastly, open discussions ($f = 1$) and giving assignments ($f = 1$) are the sub-themes under the theme of instructional strategies. PA1 perceived that promoting group work and collaboration are very important importance, stating that students think critically, communicate, and collaborate effectively in these settings. PA3 highlighted the significance of social and cross-cultural skills, ensuring diverse group compositions

to encourage cross-cultural communication. PA4 focuses on teaching democratic leadership, emphasizing that the teacher acts as a facilitator and mediator, promoting collaboration and responsibility among students. PA3 also highlighted the integration of 21st century skills through critical thinking questions and problem-solving projects, fostering communication and collaboration in the classroom. PA3 also mentioned using videos and technology to enhance creativity, critical thinking, and information literacy. PA8 recognized the benefits of information, media, and technology skills in keeping students connected to global events and enhancing their learning experiences. Additionally, PA3 emphasized the importance of distributing leadership roles and responsibilities among students, promoting life and career skills. PA4 encourages critical thinking through activities that challenge students' perspectives and prompt them to question their ideas. Lastly, PA1 underscores the promotion of flexibility and adaptability through both in-class and out-of-class assignments.

Lastly, ELT department academics were also asked about their students' competency in reflecting on the 21st century skills in their written and oral assignments. To be able to better understand the explained results, Table 47 was prepared to illustrate the main themes and sub-themes of competency of ELT department academics' students in reflecting on 21st century skills in both written and oral assignments.

Table 47

Competency in Reflecting On 21st Century Skills: Foundation University ELT Department Academics Perceptions

21st century themes	Sub-themes	<i>f</i>
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Communication (Written)	Competent	0
	Needs improvement	4
Communication (Oral)	Competent	1
	Needs improvement	3

As indicated in Table 47, the emerged themes were categorized into written assignments and oral assignments. In terms of written assignments, ($f = 4$) ELT department academics noted that their students need improvement in reflecting on 21st century skills. Examples from PA3 and PA4 reveal that students often struggle to consistently apply 21st century skills in their written work. On the other hand, only one ELT department academic ($f = 1$) noted that their students are competent in reflecting on 21st century skills in their oral assignments. As mentioned in the example quote from PA1, students seem to perform better in demonstrating 21st century skills during oral presentations. However, ($f = 3$) ELT department academics still believe that prospective EFL teachers they thought need improvement in this area. One of the ELT department academics (PA3) perceived that his/her students are not competent in utilizing 21st century skills, expressing concerns that they easily abandon using these skills without constant encouragement. PA1, on the other hand, highlighted the significance of oral assignments in showcasing students' proficiency in collaboration, communication, and critical thinking. While they may struggle without specific instructions promoting collaboration, the academic noted that students demonstrated these skills during their assignment preparations. Furthermore, PA8 acknowledged that students lack sufficient competency in these skills and emphasized the need for support and assistance.

Effect of the University Type

During the interview process, 7 ELT department academics participated from the state university and 4 from the foundation university. Based on the participant numbers, it is seen that participants of the state university are almost twice as much as the foundation university. Therefore, during the comparison, rather than focusing on the frequency values, prominent skills identified by ELT department academics were analyzed. Table 48 presents the comparison of the prominent skills from ELT department academics' perceptions on their students' competencies in using 21st century skills based on university type.

Table 48

Prominent Skills: ELT Department Academics by University Type

Emergenced theme	Sub-themes (21 st century themes)	<i>f</i>	
		State university	Foundation university
Competency	Creativity and Innovation	0	1
	Critical thinking	0	0
	Problem solving	0	0
	Communication	1	1
	Collaboration	0	1
	ICT literacy	6	2
	Flexibility and adaptability	3	1
	Initiative and self-direction	0	0
	Social and cross-cultural skills	0	1
	Leadership and responsibility	0	0
	All skills	0	0

It can be seen in Table 48 that both state and foundation university ELT department academics identified three common themes; communication, ICT and

flexibility and adaptability skills. As seen from the table, the most emphasized skill by the ELT department academics teaching at the state university are the ICT skills ($f = 6$) followed by flexibility and adaptability skills ($f = 3$). For the foundation university academics, ICT skills ($f = 2$) is the prominent one among the other mentioned skills for competency. In addition, it is seen that none of the ELT department academics mentioned critical thinking, problem solving, initiative and self-direction, productivity and accountability, and leadership and responsibility skills. Overall, it can be concluded that ELT department academics at both state and foundation universities emphasize on communication, ICT, and flexibility and adaptability skills regarding their students' competencies.

Comparison of Perceptions of Prospective EFL Teachers and ELT Department Academics

In light of the results of the study, the comparison between prospective EFL teachers and ELT department academics' perceptions based on the data obtained from the questionnaires are presented below. Table 49 shows the number, mean and standard deviation scores for each of the sub-dimension of 21st century skills for both prospective EFL teachers and ELT department academics.

Table 49

Overall Descriptive Analysis: All Prospective EFL Teachers and ELT Department Academics

Sub-dimension	Prospective EFL Teachers			ELT Department Academics		
	<i>N</i>	<i>M</i>	<i>SD</i>	<i>N</i>	<i>M</i>	<i>SD</i>
Life and Career Skills	102	4.09	0.53	14	3.30	0.58
Information, Media and Technology Skills	102	4.31	0.45	14	3.65	0.67
Learning and Innovation Skills	102	4.26	0.59	14	3.21	0.66

Table 49 shows a comparison of the mean scores and standard deviations of the LCS, IMTS, and LIS sub-dimensions between the groups of prospective EFL teachers and ELT department academics. The table shows that the prospective EFL teachers have higher mean scores in all three sub-dimensions compared to the ELT department academics. The LCS sub-dimension has a mean score of 4.09 (SD = 0.53) for the prospective EFL teachers and 3.30 (SD = 0.58) for the ELT department academics. The IMTS sub-dimension has a mean score of 4.31 (SD = 0.45) for the prospective EFL teachers and 3.65 (SD = 0.67) for the ELT department academics. The LIS sub-dimension has a mean score of 4.26 (SD = 0.59) for the prospective EFL teachers and 3.21 (SD = 0.66) for the ELT department academics. The standard deviation for the prospective EFL teachers is generally lower than that of the ELT department academics, indicating that the scores of the prospective EFL teachers are more consistent and less varied compared to the ELT department academics. The number of participants in each group is also different, with 102 prospective EFL teachers and 14 ELT department academics.

Table 50 shows the mean and standard deviation scores for each of the 19 questionnaire questions for both prospective EFL teachers and ELT department academics, allowing for a detailed comparison of the skills and competencies of prospective EFL teachers on 21st century skills.

Table 50

Comparative Descriptive Analysis: Prospective EFL Teachers and ELT Department Academics for Both Universities for Each Item

		Prospective EFL Teachers		ELT Department Academics	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>

		Prospective EFL Teachers		ELT Department Academics	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
1	I / My students can express myself/themselves effectively in different forms and contexts.	4.17	.69	3.43	.76
2	I / My students understand how and for what purpose media messages are created.	4.30	.63	3.43	.76
3	I / My students use technology as a tool in researching, organizing, evaluating and communicating information.	4.61	.58	3.64	1.08
4	I / My students influence and direct others towards a specific goal.	3.89	0.87	3.07	0.73
5	I / My students use digital technologies, communication/network tools and social networks as a tool to access information.	4.64	0.59	3.93	1.00
6	I assert my dignity in the environments I am in. / My students assert respect in the environments they are in.	4.09	0.80	3.79	0.70
7	I / My students successfully complete multiple tasks at the same time.	3.89	0.85	3.14	1.02
8	I / My students guess how much the issues covered by the media influence behavior.	4.11	0.73	3.29	0.91
9	I / My students am/are open to new ideas.	4.49	0.66	3.79	0.80
10	I /My students see myself/themselves as an active role model in guiding others.	3.97	0.92	3.14	0.86
11	I / My students can communicate effectively in environments with different cultural characteristics.	4.20	0.86	3.36	0.84
12	I / My students add a positive effect to the environment I am in.	4.19	0.81	3.57	1.01
13	I / My students work effectively in environments with different cultural characteristics.	4.23	0.77	3.43	0.85
14	I / My students turn new ideas into practice in a short time.	4.01	0.78	3.21	0.58
15	I / My students see criticism as an opportunity to improve myself.	4.13	0.83	3.00	0.68
16	I / My students approach every problem thinking that it has a solution.	4.15	0.80	2.86	0.77
17	I / My students make effective use of media technologies.	4.26	0.72	3.93	0.73

		Prospective EFL Teachers		ELT Department Academics	
		<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
18	I / My students would guess how much the issues ignored by the media influence behavior.	4.15	0.74	3.00	1.04
19	I / My students use the information I/they obtain by using digital technologies, communication/network tools and social media in a way that suits me/them.	4.31	0.63	3.93	0.83

According to the Table 50, both prospective EFL teachers and ELT department academics generally have similar mean scores on a variety of skills related to communication and technology use. The mean scores for prospective EFL teachers are generally slightly higher than those of ELT department academics. In general, the standard deviation scores for both groups are relatively small, indicating that the responses to the questionnaire questions were relatively consistent within each group.

The mean scores indicate that prospective EFL teachers' perceptions on their 21st century skills and ELT department academics' perceptions on their students' competencies are high on their ability to express themselves effectively in different forms and contexts with a mean of 4.17 (SD = 0.69) for prospective EFL teachers and (M = 3.43, SD = 0.76) for ELT department academics. Hence, understand the purpose of media messages (M = 4.30, SD = 0.63) and (M = 3.43, SD = 0.76), and use technology as a tool in researching, organizing, evaluating and communicating information (M = 4.61, SD = 0.58) and (M = 3.64, SD = 1.08) are the other questions that are found that both participant groups perceived as competent. Both prospective EFL teachers and ELT department academics answer similarly on the ability to assert dignity/respect in the environments they/their students are in (M = 4.09, SD = 0.80) and (M = 3.79, SD = 0.70), successfully complete multiple tasks (M = 3.89, SD =

0.85) and ($M = 3.14$, $SD = 1.02$), see themselves as an active role model in guiding others ($M = 3.97$, $SD = 0.92$) and ($M = 3.14$, $SD = 0.86$), and add a positive effect to their environments ($M = 4.19$, $SD = 0.81$) and ($M = 3.57$, $SD = 1.01$). They also both perceived similarly the ability to guess how much the issues ignored by the media influence behavior ($M = 4.15$, $SD = 0.74$) and ($M = 3.00$, $SD = 1.04$) and use the information they obtained through digital technologies and social media in a way that suits them ($M = 4.13$, $SD = 0.63$) and ($M = 3.93$, $SD = 0.83$).

There are some slight differences in the mean scores between the two groups in certain areas. For example, prospective EFL teachers rated themselves slightly higher on their ability to influence and direct others towards a specific goal ($M = 3.89$, $SD = 0.87$), use digital technologies and social networks to access information ($M = 4.64$, $SD = 0.59$), and communicate effectively in environments with different cultural characteristics ($M = 4.20$, $SD = 0.86$). ELT department academics, on the other hand, perceived their students higher in using digital technologies, communication/network tools and social networks as a tool to access information ($M = 3.93$, $SD = 1.00$) and on making effective use of media technologies ($M = 3.93$, $SD = 0.73$).

Lastly, Table 51 presents a comparison of perceptions between prospective EFL teachers and ELT department academics related to prospective EFL teachers' 21st century skills competencies based on the interview data. The table indicates the frequencies of each sub-theme mentioned by the two groups, allowing for a comprehensive understanding of the similarities and differences in their perceptions.

Table 51

Difference Between Perceptions of Prospective EFL Teachers and ELT Department Academics on 21st Century Skills Competencies

Emerged theme	Sub-themes (21 st century themes)	<i>f</i>	
		Prospective EFL teachers	ELT department academics
Competency	Creativity and Innovation	4	1
	Critical thinking	0	0
	Problem solving	2	0
	Communication	2	2
	Collaboration	1	1
	ICT literacy	6	8
	Flexibility and adaptability	0	4
	Initiative and self-direction	2	0
	Social and cross-cultural skills	2	1
	Leadership and responsibility	4	0
	All skills	3	0

It can be seen in Table 51 that both prospective EFL teachers and ELT department academics perceive that the prospective teachers have competencies in using creativity and innovation skills. Hence, ICT literacy with a high frequency from both groups suggests that prospective EFL teachers are competent in using the

skill. Additionally, flexibility and adaptability were emphasized four times by the ELT department academics compared to only once by prospective EFL teachers. It is also important to note that sub-themes such as initiative and self-direction, social and cross-cultural skills, leadership and responsibility, and all skills were either not mentioned by any of the participants groups, indicating a potential area for further exploration and development. Table 52 prepared to show the overall summary of the results based on research questions of the study.

Table 52

Overall Summary of the Results Based on Each Research Question

<i>Research questions</i>	<i>Results</i>
1. How do prospective teachers of English as a foreign language perceive their 21 st century skills?	- Prospective EFL teachers perceive themselves as competent in using most of the 21st century skills such as creativity, communication, problem-solving, and mostly emphasized ICT literacy. - They feel confident in their ability to express themselves effectively in different forms and contexts. - They understand the purpose of media messages and can effectively use technology for researching, organizing, evaluating, and communicating information. - Some teachers feel the need to improve their skills in critical thinking, problem-solving, communication, collaboration, and flexibility.
2. How do ELT department academics perceive their students' 21 st century skills?	ELT department academics generally have positive perceptions towards their students' ICT literacy skills.

<i>Research questions</i>	<i>Results</i>
	• They perceive their students to possess competencies in areas such as expressing themselves effectively, understanding media messages, using technology for research and communication, and working effectively in diverse cultural environments. • They also acknowledge their students' abilities to assert dignity/respect, complete multiple tasks, serve as role models, and have a positive impact on their environments. • Both foundation university academics and state university academics emphasized the instructors' influence in designing classrooms that enable students to showcase their skills. • Critical thinking and almost all LCS were mentioned as the most frequently highlighted skills that require improvement. • It was mentioned that collaboration is another particularly problematic skill for prospective EFL teachers to address, as students tend to dislike group work and collaboration activities.
3. Do prospective EFL teachers' perceived 21 st century skills competencies differ according to the type of university they attend? (foundation or state university)	• Prospective EFL teachers from foundation universities perceive themselves as competent in creativity and innovation skills, while critical thinking and flexibility/adaptability are identified as areas needing improvement. • Prospective EFL teachers from state universities perceive themselves as competent

<i>Research questions</i>	<i>Results</i>
	in creativity, problem-solving, communication, collaboration, ict skills, and leadership/responsibility. However, they also acknowledge the need to improve in critical thinking, flexibility/adaptability, initiative/self-direction, social/cross-cultural skills, and productivity/accountability.
4. Do ELT department academics' perceived 21st century skills competencies of their students differ according to the type of the university they teach at? (foundation or state university)	• ELT department academics from foundation universities perceive that their students need improvement in problem-solving and learning/innovation skills. They also emphasize the importance of instructors' influence in designing classrooms that allow students to showcase their skills. • ELT department academics from state universities highlight the instructors' influence in designing classrooms that promote the demonstration of skills. Life and career skills, particularly critical thinking and collaboration, are mentioned as areas that need improvement for their students.
5. Is there a difference between how the 21st century skills competencies of prospective EFL teachers are perceived by themselves and by the academics who teach them?	• Prospective EFL teachers have higher mean scores in all three sub-dimensions (life and career skills, information, media and technology skills, learning and innovation skills) compared to ELT department academics. • Prospective EFL teachers rate themselves higher in skills such as influencing and

<i>Research questions</i>	<i>Results</i>
	directing others towards a specific goal, using digital technologies and social networks to access information, and communicating effectively in culturally diverse environments. • ELT department academics perceive their students as more competent in using media technologies and being flexible and adaptable. • Both groups recognize competencies in creativity and innovation, as well as ICT literacy. • ELT department academics emphasize the importance of flexibility and adaptability more frequently compared to prospective EFL teachers. • Critical thinking skill was not mentioned as a component skill by either group, indicating potential areas for further exploration and development.

CHAPTER 5: DISCUSSION

Introduction

The purpose of the study was to investigate the competencies on 21st century skills of prospective EFL teachers in Türkiye and ELT department academics' opinions about their students' 21st century skills competencies. The following research questions was examined in this regard:

1. How do prospective teachers of English as a foreign language perceive their 21st century skills?
2. How do ELT department academics perceive their students' 21st century skills?
3. Do prospective EFL teachers' perceived 21st century skills competencies differ according to the type of university they attend? (foundation or State university)
4. Do ELT department academics' perceived 21st century skills competencies of their students differ according to the type of the university they teach at? (foundation or State university)
5. Is there a difference between how the 21st century skills competencies of prospective EFL teachers are perceived by themselves and by the academics who teach them?

In relation to these research questions, the data were collected through questionnaires and semi-structured interviews. The quantitative data were gathered from 103 prospective EFL teachers and 14 ELT department academics through questionnaires. The qualitative data were collected from 15 prospective EFL teachers

and 11 ELT department academics through semi-structured interviews. Statistical Package for Social Sciences (SPSS 28.1) was used to analyze the quantitative data of the study. Furthermore, the video-recordings of the interviews were transcribed via sonix.io program and those transcriptions were later transferred to the Microsoft Word program to create a priori coding list that was developed based on the theoretical framework of the study in order to analyze transcriptions. Later, the qualitative data were analyzed using content analysis technique.

This chapter is divided into three main parts. The study's main findings are discussed in the first part with references to related studies. The study's limitations are discussed in the second part. The implications for practice and further research are covered in the final part.

Discussion of the Main Findings

In this final chapter, prospective EFL teachers' perceptions in their 21st century skills competencies, differences of the perceptions of prospective EFL teachers based on the university type, ELT department academics perceptions on their students' 21st century skills, differences of the perceptions of ELT department academics based on university type, and differences among the perceptions of prospective EFL teachers and ELT department academic are presented respectively.

Prospective EFL teachers' perceptions on their 21st century skills

The present study examined the perceptions of prospective EFL teachers regarding their 21st century skills competencies. It is found that prospective EFL teachers who study at the state and the foundation universities perceived themselves relatively high in all sub-dimensions of the P21 framework. These findings support several previous researches highlighting the positive self-perceptions of prospective teachers regarding their 21st century skills competencies. Bedir (2019b) and Ekinici

(2019b) explored the perceptions of prospective teachers about their own 21st century competencies and found that they generally evaluated themselves positively across various dimensions, including critical thinking, problem-solving, communication, collaboration, and ICT literacy. In a similar vein, Çelik and Aşıksoy (2018) investigated the self-perceptions of pre-service teachers regarding their 21st century skills and found that they perceived themselves as competent in areas such as critical thinking, creativity, communication, and collaboration. These findings support the notion that prospective teachers tend to have a positive self-perception of their 21st century skills.

However, there are also areas in the current study identified by both participating groups where improvement is needed. Critical thinking, flexibility and adaptability, collaboration, and certain specific sub-themes within each skill category are mentioned as areas requiring further development. The recognition of areas for improvement suggests that these prospective teachers are open to enhancing their skills and are aware of the importance of continuous professional development. A relevant study by Fathi and Derakhshan (2020) examined the perceptions of Iranian EFL teachers regarding their critical thinking and problem-solving skills. The study revealed that these teachers felt the need to develop and strengthen these skills through training. Drawing a connection between the findings of both studies, it is likely to say that the need for ongoing development of the 21st century skills is not limited to prospective EFL teachers who are still in their training phase but also ELT teachers who are in the field. The significance of this connection lies in the implication that if prospective teachers are not adequately educated and provided opportunities to develop and practice their 21st century skills during their teacher training programs, they are likely to seek further professional development in the

future. Therefore, it can be said that it is important for teacher training programs to incorporate effective strategies and methodologies that enable prospective teachers to develop their 21st century skills.

The findings of the current study also revealed that prospective EFL teachers considered creativity and innovation, communication, collaboration, and ICT literacy as the most important 21st century skills for English teachers. These results align with previous research conducted by Bedir (2019b) and Ekinçi (2019a), who also found that prospective teachers emphasizing the significance of creativity, communication, collaboration, and technological skills in the context of language education.

The findings from both state university and foundation university prospective EFL teachers highlight several common factors that encourage the utilization of 21st century skills in their teaching practices. Both state university and foundation university prospective EFL teachers are encouraged to use 21st century skills through factors such as group work, the aspiration to be a good teacher, inner motivation, and the influence of instructors during undergraduate education. Similarly, the study of Bani-Amer (2022) revealed that the most effective method for improving 21st century competencies as identified by 82 prospective teachers were collaborative learning, encompassing activities such as group work, teamwork, peer learning, co-teaching, participation in learning communities, networking, and knowledge sharing.

The present study also revealed that prospective EFL teachers were more likely to identify themselves as being competent in reflecting on their 21st century skills in written assignments than in oral assignments. One possible explanation for this discrepancy could be the nature of the assignments themselves. Written assignments typically provide students with more time for reflection and revision, allowing them to carefully assess and articulate their understanding of 21st century

skills. On the other hand, oral assignments may require immediate and spontaneous responses, which could lead to a perceived lack of confidence or difficulty in effectively expressing their thoughts on their 21st century skills. It is recognized that written assignments allow students more time for reflection, revision, and careful articulation of their thoughts and skills (Flower et al., 1986; Hayes, 2012). Moreover, Haryati et al (2022) found out that critical thinking skills of the students who utilizes engage, research and present strategies in a case-based learning environment are more successful than those who do not.

In this study, the interview data have revealed some factors that may influence the prospective EFL teachers' perceptions and opportunities to utilize their 21st century skills. The findings suggest that the teacher-centered nature of classes in Türkiye may hinder the effective use and application of these skills within the classroom. Additionally, the lack of related courses on 21st century skills in their department highlights the potential benefit of incorporating courses that offer diverse implementations of these skills. Moreover, participants indicated that enhancing their knowledge and research on subjects related to 21st century skills could contribute to their feelings of competence in utilizing these skills. These findings emphasize the importance of addressing these factors in teacher training programs and curriculum development to better equip prospective teachers with the necessary support and resources to effectively utilize their 21st century skills in the classroom. Similarly, another previous study revealed that prospective EFL teachers identified several factors that they felt influenced their perceptions and opportunities to utilize their 21st century skills, including the teacher-centered nature of classes in Türkiye, and their own knowledge and research on 21st century skills (Çokadar & Çetin, 2019).

Differences based on the university type of prospective EFL teachers

The present study found that there was no significant difference between the perceptions of the prospective EFL teachers studying at the state university and the foundation university. This suggests that they have similar levels of perceived competency in using 21st century skills in their classes. Similar to this finding, Erden and Başoğlu (2019) found that there was no significant difference in the total scores of the prospective EFL teachers at the state university and the foundation university. In addition, Nguyen et al (2021) pointed out there was no significant difference in perception of the 21st century skills among the students of the Freshman, Sophomore, Junior or Senior grades in his research setting in Vietnam. Hence, the skills that were commonly mentioned by both groups include creativity and innovation, problem-solving, communication, and ICT literacy. However, foundation university students tended to mention a higher number of other skills such as, creativity and innovation and ICT skills. State university students, on the other hand, emphasized leadership and responsibility skills more frequently. Overall, the data suggest that both groups of prospective EFL teachers feel competent in using 21st century skills, but foundation university students may have a higher level of confidence in their competencies.

One possible reason for foundation university students' higher mention of creativity and innovation and ICT skills could be related to the educational environment and resources available at their institutions. On the other hand, the state university students' emphasis on leadership and responsibility skills could be influenced by the curriculum or teaching approaches adopted at their institutions. State universities may prioritize the development of leadership qualities and a sense of responsibility among their students, which could explain their higher frequency of

mention for these skills. Additionally, individual differences and personal experiences might also play a role in shaping the perceived importance of certain skills. Students' prior exposure to different learning environments, extracurricular activities, or professional experiences could influence their emphasis on specific 21st century skills.

ELT department academics' perceptions on their students' 21st century skills

The present study also investigated the perceptions of ELT department academics regarding their students' competency in reflecting on 21st century skills. The questionnaire results indicate that ELT department academics who teach at a state university perceive their students to be somewhat competent in almost all LCS and LIS sub-dimensions, and quite competent in IMTS sub-dimension.

However, ELT department academics also identified several 21st century skills that the prospective EFL teachers need to improve their competency in using 21st century skills including creativity and innovation, critical thinking, problem solving, communication, collaboration, ICT skills, initiative and self-direction, and social and cross-cultural skills. Hence, the researcher noted during interviews with state university ELT department academics that the term "digital natives," was frequently used to describe the competencies of their students in using ICT skills. The term "digital natives" refers to individuals who have grown up in a world where digital technologies are widespread and have been exposed to them from an early age (Prensky, 2001). The academics emphasized the importance of student-centered learning environments where classrooms are designed to invite students into decision-making, and to enable them to reflect on their 21st century skills more. Similarly, the majority of EFL teachers interviewed for Şahin and Han (2020) study said that collaboration, communication, creativity and innovation, critical thinking,

problem solving, and media literacy are all necessary skills that must be cultivated in 21st century EFL classrooms.

The results of the interview indicate that the most important 21st century skills that an English teacher should have according to the ELT department academics are communication, critical thinking, creativity, problem-solving, ICT literacy. The results are consistent with a previous study conducted by Yalçın (2021), which found that according to ELT department academics perceptions about the most important 21st century skills for English teachers are communication, critical thinking, creativity, problem-solving, and ICT literacy.

The present study also revealed that ELT department academics perceptions on the commonly utilized 21st century skills by the prospective EFL teachers are creativity, communication, collaboration, and the most emphasized one ICT literacy skills. Academics emphasized that their students need to use these skills to create interactive materials for micro-teaching activities, and to develop creative lesson plans. The study conducted by Pascal and Gougou (2022) also indicate that collaboration and communication skills are promoted in English language teaching and highlight the usefulness of creativity and digital literacy as techniques to empower English language learners' proficiency.

However, Aljarrah & Khataybeh (2021) claim that most of the time, teaching staff do not always implement the 21st century skills in their classes. According to Kim et al. (2019), it is essential to prepare and train teachers in both the acquisition and dissemination of 21st century skills. An essential start can be to determine how well instructional practices and teacher practices promote and enable the growth of 21st century abilities in the classroom. It is also revealed in the present study that both state and foundation university ELT department academics encourage

their students to use 21st century skills in their classes. The most common strategies used to encourage students to use 21st century skills are group work, motivating students, using media and other sources in the classroom, open discussions and giving assignments. The findings of a study by Wiraningsih and Santosa (2020) demonstrate that the teachers had already integrated 21st century learning into certain areas, particularly through collaboration and communication, illustrating their role as managers and organizers who supported students in employing diverse strategies to address challenges.

The present study also examined the perceptions of ELT department academics regarding their students' competency in reflecting on their 21st century skills in their written and oral assignments. In terms of written assignments, the majority of ELT department academics noted that their students need improvement in reflecting on 21st century skills. On the other hand, in oral assignments, some ELT department academics noted that their students are competent in demonstrating 21st century skills. However, there is still room for improvement in this area. Hence, while some prospective EFL teachers, according to their professors, are competent in using communication and collaboration in oral assignments, others struggle with communicating clearly and organizing their ideas while delivering a speech. The recognition that students need improvement in reflecting on 21st century skills in written assignments may suggest a gap in their ability to effectively articulate their understanding and application of these skills in a written format. This may indicate a need for further instruction or support in developing written communication skills related to 21st century competencies.

Differences based on the university type of ELT department academics

English language educators at every level should focus on improving students' knowledge and skills to meet the framework established by the Partnership for 21st Century Skills (Sakulprasertsri, 2020). There could be no educator against this fact. In the present study as well, no significant difference has been found among the perceptions of the ELT department academics about the prospective EFL teachers' competencies in using the 21st century skills according to the type of university that they teach in. In a similar study, Ataberk and Mirici (2022) administered a questionnaire to ELT department academics from public and foundation universities in Türkiye and found that there was no significant difference in their perceptions of the prospective EFL teachers' competencies in using 21st century skills. This may suggest that the academics from both types of universities have similar expectations of the prospective EFL teachers' skills.

In addition, both state and foundation university ELT department academics emphasized the importance of communication, ICT, and flexibility and adaptability skills. However, none of the ELT department academics mentioned critical thinking, problem solving, initiative and self-direction, productivity and accountability, and leadership and responsibility skills. These skills are also mentioned as outcomes of the engage, research and present strategies (Haryati et al, 2022).

Difference between prospective EFL teachers' and ELT department academics' perceptions

In many studies, prospective teachers perceive soft skills, such as critical thinking, problem-solving, collaboration, creativity, and effective communication as essential 21st century skills (Nguyen et al, 2021; Ekizer & Yıldırım, 2023). In many other studies, viewpoints of ELT department academics present similar skills as the

requirements of the present time educational objectives. For example, Akbari and Yazanmehr (2014) and Gonzalez-Perez and Ramirez-Montoya (2022) discuss the notion of teacher and EFL teacher qualifications in the new era, and point to instruments scaling the development of 21st century competencies to a complex, changing world. They underline the significance of educational objectives and required employment competencies including the Learning and Innovation Skills (LIS) (Communication, Collaboration, Critical Thinking and Creativity), Information, Media and Technology Skills (IMTS) and Life and Career Skills (LCS) since some are knowledge oriented and others are practice focused.

The comparison of perceptions between prospective EFL teachers and ELT department academics regarding the competencies in using 21st century skills was examined in the study. The results of the questionnaire indicate that prospective EFL teachers generally have higher mean scores in the sub-dimensions of LCS, IMTS and LIS compared to ELT department academics' responses about those prospective teachers' competencies. The standard deviation scores for prospective EFL teachers are also lower, indicating more consistency in their responses.

Additionally, there were some subtle differences between two groups. Prospective EFL teachers rated themselves slightly higher in their ability to influence and direct others, use digital technologies and social networks to access information, and communicate effectively in culturally diverse environments. On the other hand, ELT department academics put a great emphasis on their students' competencies in using digital technologies, communication/network tools, and social networks as well as making effective use of media technologies.

In terms of similarities, both prospective EFL teachers and ELT department academics perceived themselves or their students as competent in expressing

themselves effectively in different forms and contexts, understanding media messages and their purpose, and using technology as a tool for research, organization, evaluation, and communication of information. They also shared similar perceptions in asserting dignity/respect, completing multiple tasks, being active role models, and adding a positive effect to their environments. Additionally, both groups recognized the importance of considering the influence of media on behavior and using digital technologies and social media appropriately.

The comparison of the results obtained from the interviews for prospective EFL teachers and ELT department academics provides insights into their perceptions regarding the competencies of prospective EFL teachers in using 21st century skills. Both prospective EFL teachers and ELT department academics identified themselves and their students as competent in using IMTS.

However, ELT department academics identified a higher number of skills that they believe their students need to improve compared to the prospective EFL teachers. The ELT department academics mentioned the need for improvement in creativity and innovation, critical thinking, problem-solving, communication, collaboration, ICT skills, initiative and self-direction, and social and cross-cultural skills. Zhang et al. (2020) point out similar skills in their study. On the other hand, the prospective EFL teachers identified a more limited number of skills that they believe they need to improve. These include all 21st century skills, creativity and innovation, critical thinking, and problem-solving. This indicates that the ELT department academics perceive a broader range of areas where their students can enhance their competency in using 21st century skills.

Implications for Practice

The first implication for practice is that ELT departments in Türkiye should prioritize the integration of 21st century skills into their curricula, with a particular emphasis on critical thinking, problem-solving, communication, collaboration, and flexibility. These skills were identified by both prospective EFL teachers and ELT department academics as areas needing improvement. This integration should be coupled with training programs for both prospective EFL teachers and ELT department academics to enhance their awareness and understanding of these skills.

The second implication for practice is that ELT departments should consider the different perceptions of 21st century skills among prospective EFL teachers and ELT department academics. This means that course design and implementation should be tailored to suit the needs and expectations of both groups. ELT departments should strive to strike a balance between imparting technical skills and encouraging critical thinking and creativity in their students by offering an elective course to integrate the 21st century skills in their curriculum.

The third implication for practice is that prospective EFL teachers should be encouraged to participate in professional development programs that focus on 21st century skills. These programs should be designed to equip teachers with the knowledge and tools needed to impart these skills to their students effectively. By doing so, teachers can facilitate the development of well-rounded individuals who are equipped to thrive in the 21st century.

The last implication for practice is that schools and universities should provide opportunities for prospective EFL teachers to develop and practice their 21st century skills through various activities such as project-based learning, group work, and technology-based tasks. By engaging in these activities, prospective EFL

teachers can develop a better understanding of the skills they are expected to impart to their students, as well as improve their own skills.

Implications for Further Research

As a result of the findings of this study, several recommendations for further investigations can be put forward. To begin, more information can be collected from a wider range of higher education institutions in order to facilitate comparisons and the development of more generalizable findings.

Secondly, the participants of the study were composed of prospective EFL teachers enrolled in the 3rd and 4th grades in ELT departments, and academics in ELT departments. In order to reach more data, the perceptions of prospective EFL teachers who are studying in the 1st and 2nd years of their education and the mentor teachers in schools could be also investigated for further research. Furthermore, more comprehensive data can be obtained and generalizations can be made by including schools from different cities in Türkiye in order to conduct further studies.

In this study, the main focus was about the perceptions on the 21st century skills competencies of prospective EFL teachers. Hence, ELT department academics opinions were also focused in order to collect more data about the same prospective teachers. However, for triangulation purposes, a syllabus review can be conducted and the needs in the ELT department curricula may be determined in terms of teaching and learning 21st century skills.

It is also recommended that future studies can incorporate a more comprehensive approach by integrating field observations alongside participant reports to gather data on perceived competencies. This approach would provide a more holistic understanding of the actual application and demonstration of 21st

century skills by prospective EFL teachers, offering valuable insights beyond self-reported perceptions.

Finally, further research is needed to investigate the effectiveness of integrating 21st century skills into ELT curricula and the impact of training programs on prospective EFL teachers and ELT department academics. ELT departments and educators need to evaluate the effectiveness of their curricula and training programs in equipping graduates with the skills required to thrive in the 21st century workplace. Through research, they can identify areas that need improvement and make necessary changes to better prepare their students for the challenges ahead.

Limitations of the Study

The results of the current study should be taken with caution due to some limitations. Firstly, the participants of the study were confined to only the one state and one foundation university in Ankara, Türkiye. Therefore, English Language Teaching departments of other universities in different cities and different regions in Türkiye could have been included in order to conduct a more comprehensive research study on the subject and to address a wider population.

Another limitation is the inequality of gender of the students studying in the ELT field and the fact that the number of female students is higher than the number of male students. As a consequence, no gender-related analysis could be made in order to compare the data gathered.

The questionnaires and the interview letter were sent through online platforms to the target universities' head of ELT departments. The questionnaire was sent via Google Forms and the interview letter for both prospective EFL teachers and ELT department academics was sent via email. Since this was the case, it was impossible to know for sure if the intended participants filled out the questionnaires

or if the questionnaires even reached them all. A longitudinal research study, which would have provided more generalizable findings, was not possible due to the constraints.

Lastly, the semi-structured interviews were also held online because of the pandemic. The researcher recorded the interviews with the consent of the participants. However, the body language and gestures of the participants might not have been observed by the observer because the interviews were held online rather than face to face. If nonverbal elements were collected, another dimension have been added to the study. More detailed data based on the participants could have been gathered in face to face interviews with the participants.

Since the study was conducted at a time when the effects of the Covid-19 pandemic were still seen, students and academics were reluctant to interview face-to-face. For this reason, the interviews were conducted online instead of face to face in order to avoid health problems. Interviews were recorded after obtaining permission from the participants. Since they knew that they were being recorded, in light of the observation of the researcher, they were more nervous during the interview and this situation could have been reflected in their answers. Therefore, this might have had an effect on collecting accurate data for the study.

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APPENDIX A

Questionnaires

21st Century Skills Scale for Prospective EFL teacher's

21st CENTURY SKILLS

Dear teacher candidate,

This questionnaire (*adapted from Durmuş,2020) was prepared for my thesis under the supervision of Asst. Prof. Dr. Tijen Akşit within the scope of İhsan Doğramacı Bilkent University Graduate School of Educational Sciences, Teaching English as a Foreign Language Master's Program, with the purpose of exploring the 21st century skills of prospective EFL teachers in Türkiye and opinions of ELT department academics about their students' 21st century skills. It will take approximately 10 minutes to complete the questionnaire.

In terms of this questionnaire;

- Your identity will never be revealed.
- Your information will be accessible only to the researcher, will be stored on a password-protected device, and will be used just for the purpose of this thesis and any associated conference presentations or journal publication.
- Your responses will not be disclosed to your school and will have no impact on your student rights.
- You may withdraw at any point throughout the questionnaire.
- The study's findings will be shared with you upon request. In this instance, you may contact me by e-mail at the address provided below.

Please check the box below if you fulfill the eligibility requirements and consent to participate. Criteria:

- I am older than 18.
- I have read and understood the information provided above regarding this research.
- I understand that I may resign from the study at any time without penalty.
- I understand who will have access to the personally identifiable information given and what will happen to the data when the study is complete.
- I understand that this study has been evaluated and ethically cleared by the Bilkent University Ethics Committee.

Thank you very much for your cooperation and for taking part in this study.

Ilgın Mirici

MATEFL Student Graduate School of Education

Bilkent University, ANKARA

Please, kindly mark (X) the box below for your agreement about responding to the questions, and answer the proceeding questions.

Agreement: I fulfill the requirements and accept to participate.

PART I (Personal Information)

1. Your gender: ☐ Male ☐ Female ☐ Prefer not to mention
2. Your year of study: ☐ 3 ☐ 4

*Durmuş, A. (2020). *21.yy becerilerinin öğretimine ilişkin öğretmen adaylarına yönelik bir ders programı tasarısı ve uygulanması* (Publication no. 667083) [Doctoral dissertation, Eskişehir Anadolu Üniversitesi]. YÖK Tez Merkezi

PART II

Explanation: Below there are **19** statements to determine your perceptions of having 21st century skills. Opposite each statement, there are answers where you can indicate your level of agreement with the statement as **“Never, Rarely, Sometimes, Often, Always”**. After carefully reading each statement, please indicate your responses by putting an **(X)** in the appropriate answer for you. Please do not leave unmarked items.

	Expressions	Never	Rarely	Sometimes	Often	Always
1	I can express myself effectively in different forms and contexts.					
2	I understand how and for what purpose media messages are created.					
3	I use technology as a tool in researching, organizing, evaluating and communicating information.					
4	I influence and direct others towards a specific goal.					
5	I use digital technologies, communication/network tools and social networks as a tool to access information.					
6	I assert my dignity in the environments I am in.					
7	I successfully complete multiple tasks at the same time.					
8	I guess how much the issues covered by the media influence behavior.					
9	I am open to new ideas.					
10	I see myself as an active role model in guiding others.					
11	I can communicate effectively in environments with different cultural characteristics.					
12	I add a positive effect to the environment I am in.					
13	I work effectively in environments with different cultural characteristics.					
14	I turn new ideas into practice in a short time.					
15	I see criticism as an opportunity to improve myself.					
16	I approach every problem thinking that it has a solution.					

17	I make effective use of media technologies.					
18	I would guess how much the issues ignored by the media influence behavior.					
19	I use the information I obtain by using digital technologies, communication/network tools and social media in a way that suits me.					

The questionnaire ends here. Thank you.

IMPORTANT NOTE:

If you would be willing to participate in a brief interview to give me with further information, please write your email address and/or phone number below.

e-mail: _____ mobile: +90 (5____) _____

Thank you for your contribution.

APPENDIX B

21st Century Skills Scale for ELT Department Academics

21st CENTURY SKILLS

Dear academic,

This questionnaire (*adapted from Durmuş,2020) was prepared for my thesis under the supervision of Asst. Prof. Dr. Tijen Akşit within the scope of İhsan Doğramacı Bilkent University Graduate School of Educational Sciences, Teaching English as a Foreign Language Master's Program, with the purpose of exploring the 21st century skills of prospective EFL teachers in Türkiye and opinions of ELT department academics about their students' 21st century skills. It will take approximately 10 minutes to complete the questionnaire.

In terms of this questionnaire;

- Your identity will never be revealed.
- Your information will be accessible only to the researcher, will be stored on a password-protected device, and will be used just for the purpose of this thesis and any associated conference presentations or journal publication.
- Your responses will not be disclosed to your school and will have no impact on your student rights.
- You may withdraw at any point throughout the questionnaire.
- The study's findings will be shared with you upon request. In this instance, you may contact me by e-mail at the address provided below.

Please check the box below if you fulfill the eligibility requirements and consent to participate. Criteria:

- I am older than 18.
- I have read and understood the information provided above regarding this research.
- I understand that I may resign from the study at any time without penalty.
- I understand who will have access to the personally identifiable information given and what will happen to the data when the study is complete.
- I understand that this study has been evaluated and ethically cleared by the Bilkent University Ethics Committee.

Thank you very much for your cooperation and for taking part in this study.

İlgin Mirici

MATEFL Student

Graduate School of Education

Bilkent University, ANKARA

Please, kindly mark (X) the box below for your agreement about responding to the questions, and answer the proceeding questions.

Agreement: I fulfill the requirements and accept to participate.

PART I (Personal Information)

1. Your gender: ☐ Male ☐ Female ☐ Prefer not to mention
2. Your year of teaching experience: ☐ 0-5 ☐ 6-10 ☐ 11-15 ☐ 16-20 ☐ 21

*Durmuş, A. (2020). 21.yy becerilerinin öğretimine ilişkin öğretmen adaylarına yönelik bir ders programı tasarısı ve uygulanması (Publication no. 667083) [Doctoral dissertation, Eskişehir Anadolu Üniversitesi]. YÖK Tez Merkezi.

PART II

Explanation: Below there are **19** statements to determine your perceptions of your students having 21st century skills. Opposite each statement, there are answers where you can indicate your level of agreement with the statement as “**Never, Rarely, Sometimes, Often, Always**”. After carefully reading each statement, please indicate your responses by putting an (X) in the appropriate answer for you. Please do not leave unmarked items.

	Expressions	Never	Rarely	Sometimes	Often	Always
1	My students can express themselves effectively in different forms and contexts.					
2	My students understand how and for what purpose media messages are created.					
3	My students use technology as a tool in researching, organizing, evaluating and communicating information.					
4	My students influence and direct others towards a specific goal.					
5	My students use digital technologies, communication/network tools and social networks as a tool to access information.					
6	My students assert my dignity in the environments they are in.					
7	My students successfully complete multiple tasks at the same time.					
8	My students guess how much the issues covered by the media influence behavior.					
9	My students are open to new ideas.					
10	My students see themselves as an active role model in guiding others.					
11	My students can communicate effectively in environments with different cultural characteristics.					
12	My students add a positive effect to the environment they are in.					
13	My students work effectively in environments with different cultural characteristics.					
14	My students turn new ideas into practice in a short time.					
15	My students see criticism as an opportunity to improve themselves.					
16	My students approach every problem thinking					

	that it has a solution.					
17	My students make effective use of media technologies.					
18	My students would guess how much the issues ignored by the media influence behavior.					
19	My students use the information they obtain by using digital technologies, communication/network tools and social media in a way that suits them.					

The questionnaire ends here. Thank you.

IMPORTANT NOTE:

If you would be willing to participate in a brief interview to give me with further information, please write your email address and/or phone number below.

e-mail: _____ mobile: +90 (5____) _____

Thank you for your contribution.

APPENDIX C

Interviews

Consent form for the Interviews

The purpose of this study was to investigate the 21st century skills of prospective EFL teachers in Türkiye and opinions of ELT department academics about their students' 21st century skills. Questionnaires and semi-structured interviews will be used to collect the data. The interview will be conducted through an online platform. The aim of this mixed-methods study is to collect data on the 21st century skills of prospective EFL teachers in Türkiye and opinions of ELT department academics about their students' 21st century skills. Based on the findings, the study also provides recommendations.

Confidentiality: Your answers to interview questions will remain foundation. Your real identity will never be revealed. A random number will be allocated to you. Once the recording has been transcribed, it will be erased. Only the researcher will have access to the transcript, which will be stored without your name, until the research is complete. The information you provide will be kept strictly confidential and will have no impact on your relationship with your school. Thank you very much for your cooperation and for your invaluable contribution to the study.

Agreement:

☐ The nature and aim of this research have been properly stated, and I consent to participate. I am aware that I may withdraw at any moment without incurring any penalties.

Date: _____

Name: _____

Interview questions for prospective EFL teachers

Please, let me know about your viewpoint concerning the following questions.

1. What do you think are the most important 21st century skills that an English teacher should have? Why?
2. What do you think about your competency in using the 21st century skills in the classes you take in your department?
3. What do you think is the most common 21st century skill(s) that you utilize in the classes you take in your department?
4. What encourages you to use the 21st century skills in your classes? Can you give examples?
5. How competent do you think you are in reflecting on the 21st century skills in your written and oral assignments? Can you give examples?

Interview questions for ELT department academics

Please, let me know about your viewpoint concerning the following questions.

1. What do you think are the most important 21st century skills that an English teacher should have? Why?
2. What do you think about your students' competency in using the 21st century skills in your classes?
3. What do you think is the most common 21st century skill(s) that your students utilize in your classes?
4. What do you do to encourage your students to use the 21st century skills in your classes? Can you give examples?
5. How competent do you think your students are in using the 21st century skills and reflecting them in their written and oral assignments? Can you give examples?

APPENDIX D

Summary Sheet for Interviews

P21 Framework Definitions

CORE SUBJECTS AND 21st CENTURY THEMES

LEARNING AND INNOVATION SKILLS:

1. CREATIVITY AND INNOVATION

- Think Creatively
- Work Creatively with Others
- Implement Innovations

2. CRITICAL THINKING AND PROBLEM SOLVING

- Reason Effectively
- Use Systems Thinking
- Make Judgments and Decisions
- Solve Problems

3. COMMUNICATION AND COLLABORATION

- Communicate Clearly
- Collaborate with Others

INFORMATION, MEDIA AND TECHNOLOGY SKILLS:

1. INFORMATION LITERACY

- Access and Evaluate Information
- Use and Manage Information

2. MEDIA LITERACY

- Analyze Media
- Create Media Products

3. ICT (Information, Communications and Technology) LITERACY

- Apply Technology Effectively

LIFE AND CAREER SKILLS:

1. FLEXIBILITY AND ADAPTABILITY

- Adapt to Change

- Be Flexible

2. INITIATIVE AND SELF-DIRECTION

- Manage Goals and Time
- Work Independently
- Be Self-directed Learners

3. SOCIAL AND CROSS-CULTURAL SKILLS

- Interact Effectively with Others
- Work Effectively in Diverse Teams

4. PRODUCTIVITY AND ACCOUNTABILITY

- Manage Projects
- Produce Results

5. LEADERSHIP AND RESPONSIBILITY

- Guide and Lead Others
- Be Responsible to Others

APPENDIX E

Qualitative Data Coding Table

Priori coding list of prospective EFL teachers' responses

Question	Main themes	Sub-themes and codes	Frequency	Example Quotes
Important skills	All skills	–	0	–
	Code: AS			
	Learning and Innovation Skills (21st century theme)	Creativity and innovation Code: CI	8 (4 State + 4 Private)	SS2: ...what I can see, creativity is also very important. SS4: I think it's creativity... SS6: I think it is creativity... SS15: I think there are two. And one of them is communication, and the other one is creativity. PS5: ...secondly, I say creativity... PS7: ...to be creative. PS10: An English teacher should have creativity... PS11: I guess they are creativity and innovation skills...
	Code: LIS			
		Critical thinking Code: CT	0	–
		Problem solving Code: PS	3 (1 State + 2 private)	SS6: ...problem solving... PS12: First of all, I think that communication skills should be strong, and I also think that he should have problem-solving and flexibility skills. PS13: I think problem solving skill is one of the most important.
		Communication Code: COM	4 (1 state + 3 private)	SS15: I think there are two. And one of them is communication, and the other one is creativity. PS1: To be able to communicate well with children. PS12: First of all, I think that communication skills should be strong, and I also think that he should have problem-solving and flexibility skills. PS14: I think it is important for an English teacher to have communication skills.

		Collaboration Code: COL	1 (private)	PS11: And also, collaborating with others is also important...
	Information, Media and Technology skills (21st century theme) Code: IMTS	ICT literacy Code: ICT	4 (2 state + 2 private)	SS2: I think information literacy is very important... SS3: ...I think the literacy part is the most important part... PS8: ...is the use of technology. PS11: ...also media...
	Life and Career Skills (21st century theme) Code: LCS	Flexibility and adaptability Code: FA	2 (private)	PS9: ...the most important ones are flexibility and adaptability. PS12: First of all, I think that communication skills should be strong, and I also think that he should have problem- solving and flexibility skills.
		Initiative and self-direction Code: ISD		–
		Social and cross cultural skills Code: SCC		–
		Productivity and accountability Code: PA		–
		Leadership and responsibility Code: LR	1 (private)	PS5: ...I would say leadership.
	Reason of importance Being a good teacher (emerged theme) Cod: BGT	Communication with students Code: CWS	1 (private)	PS14: ...whether it is a child or an adult, I think it is very important for a teacher to know how to talk to the student in front of her.
		Learning motivation of students Code: LMS	6 (2 state + 4 private)	SS2: ...the teachers should work on new ways, new creative activities while they are teaching. SS4: ...today's children and teenagers are really hard to get on well with and they can feel bored very easily. And if you want to keep them involved in that cause, you should offer them some creative materials and maybe topics. PS5: ...he or she can lead these students towards a goal. Or maybe he or she can guide them whenever they have a problem or they have difficulty in certain areas or in certain skills. PS5: ...because they tend to

				lose focus in a quicker way than, let's say, adults. So, I think creativity might help them. Focusing on the classroom activities or maybe in motivating them. PS7: ...children these days get bored with most things very quickly and most things don't interest them, it can be very boring. Since they are in a very technological age, that's why the teacher needs to be creative. PS11: ...most of the students are learning easily with media. So that's why we have to have those skills.
		Being up to date Code: UTD	3 (private)	PS7: Because in the 21st century, especially with the developing technology, children are also different from other years, I think. They have a lot of technological tools at their hands. I think the teacher should be very creative in this regard as they start to learn differently compared to other years. PS9: ...we may need to adapt to each environment and student. PS12: Because when I look at my own time and look at the current students' intelligence development and environmental factors, I see many differences. Even if I am not old enough to say this, what an English teacher should have in general, not just an English teacher, is to have an understanding of education appropriate for his age.
		To be able to understand students Code: AUS	1 (private)	PS1: ...most importantly to understand them.
		Teaching process Code: TP	1 (state)	SS2: ...use these materials in teaching in the teaching process...
		Managing classroom Code: MC	1 (state)	SS6: ...teachers are not engineers, so we don't actually be mechanics. We have to adopt the situation if a student comes and cries or

				something...we have to adjust the environment to the situation. If we are creative, creative enough, we can just make the environment better for our students and solve our problems in the classroom, I guess.
		Making the lesson interesting for students Code: MLI	1 (private)	PS8: ...it makes the lesson more interesting. Teaching the lesson by following the current methods is much better than just sitting down and talking.
		Enabling students to question Code: ESQ	1 (private)	PS10: ...should enable students to interrogate.
		Motivating future students in using 21st century skills Code: MFS	1 (private)	PS11: ...I don't want the students to lose their collaboration with their friends.
		Lesson planning Code: LP	1 (state)	SS15: (CREATIVITY)...our lesson plans don't always work well, and you have to think creatively and right at that time we should find an activity or change the plans, think creatively and create an activity at that time.
		Providing a common education for all students Code: CE	1 (private)	PS12: And I think that according to the abilities of the students, according to the perception potential of the students, they should deal with all their students individually and have the ability to provide a common education according to all students...
	Technology (emerged theme) Code: TECH	Use of technology Code: UT	2 (1 state + 1 private)	SS3: ...teacher must be capable of understanding and using technology. PS7: ...I do not think that a teacher who is still far from technology today can cooperate with current children very well. PS8: We can make the lesson more active by using technology.
		Internet as the source of information Code: ISOI	1 (state)	SS2: ...teachers should be able to extract as much information as we can from the sources on the Internet...
		Technology as a tool for	1	SS3: ...it's usually responsible for students and

		communication Code: (TTC)	(state)	using these new communication tools, these new technological tools, it really makes it easier for the connection between the teacher and student.
Competency of the prospective EFL teachers' skills	Competent (emerged theme) Code: COM	All 21st century skills Code: (AS)	3 (1 state + 2 private)	SS3: I'm pretty confident in all of them. ...I think I'm pretty knowledgeable about most of these topics... PS9: I think that we have seen all of these skills in general in the courses I have taken, and I think that we are fully prepared for this. PS13: I consider myself competent.
		Creativity and innovation Code: (CRT)	4 (2 state + 2 private)	SS2: ...I think I'm pretty creative... SS4: ...I'm good at designing creative and innovative materials and activities. PS7: The skill that I consider myself competent is the ability to think creatively. PS11: I generally use, again, creativity and media.
		Critical thinking		–
		Problem solving skills	2 (1 state + 1 private)	SS3: I really take pride in my problem-solving skills... PS12: I also think I have problem solving skills.
		Communication Code: (COM)	2 (state)	SS6: I think my strongest one is communication...I can say communication and collaboration is the skill I am good at. SS4: I'm good at communication...
		Collaboration Code: (COL)	1 (state)	SS6: I can say communication and collaboration is the skill I am good at.
		ICT skills Code: ICT	6 (3 state + 3 private)	SS2: In the pandemic time I was pretty confident with my skills since I know how to use a computer really well. SS3: ...I would say I'm really good with technology... SS4: Media literacy. I can count myself good at it. PS8: I realize that I have improved the use of technology in a technology-related course. PS10: I am good at

				technology. PS11: I generally use, again, creativity and media.
		Flexibility and adaptability Code: (FA)		–
		Initiative and self-direction Code: (ISD)	2 (1 state + 1 private)	SS4: I'm good at self-direction. PS5: And I usually take the initiative...
		Social and cross-cultural skills Code: (SCS)	2 (1 state + 1 private)	SS4: Especially when I'm a little bit informed about a culture, I can interact effectively with others... PS11: I use social and cross-cultural skills.
		Productivity and accountability Code: (PA)		–
		Leadership and responsibility Code: (LDR)	4 (3 state + 1 private)	SS2: ...I am pretty good with leading a group. SS6: I take responsibility and leadership. SS4: I'm a good leader. I'm really responsible. I do whatever I'm supposed to do. PS5: I make the most use of leadership during the courses in my department. ...I consider myself as a good leader...
	21 st century themes (Needs improvement) Code: NI	All 21 st century skills Code: (AS)	2 (1 state +1 private)	SS15: ...honestly, I don't have many of them. PS14: I don't consider myself very competent in general...
		Creativity and innovation Code: (CI)	1 (state)	SS15: I lack critical thinking and creativity.
		Critical thinking Code: (CT)	3 (state)	SS6: ...I can't say I have so much critical thinking and problem solving. SS15: I lack critical thinking and creativity. SS4: ...I think I have problems with problem solving and critical thinking.
		Problem solving Code: (PS)	2 (state)	SS6: ...I can't say I have so much critical thinking and problem solving skills. SS4: ...I think I have problems with problem solving and critical thinking.

		Communication Code: (COM)	1 (private)	PS1: I find myself a little inadequate in communication skills. (only in the L2, not in native language.) ...when I make a mistake while speaking English, I feel pressure because I immediately get negative feedback about how I did it wrong. For this reason, I find myself inadequate in expressing myself when speaking English, but I can successfully use this skill in my mother tongue.
		Collaboration Code: (COL)	2 (1 state + 1 private)	SS4: ...collaboration isn't good for me. PS10: ...sometimes I don't like to study doing collaboration because I want to study by myself...
		ICT skills Code: (ICT)		–
		Flexibility and adaptability Code: (FA)	1 (state)	SS4: I'm not so good at flexibility...
		Initiative and self-direction Code: (ISD)		–
		Social and cross-cultural skills Code: (SCS)		–
		Leadership and responsibility Code: (LR)		–
		Creativity and innovation		–
Most common utilized skill(s)	Learning and Innovation Skills (21 st century theme) Code: LIS	Critical thinking	7 (2 state + 5 private)	SS3: ...I think creativity and innovation is also an important skill that we use. SS4: As I said, I think it's creativity. Because there are so many, so many principles, materials, activities in our field right now. That's why I benefit from creativity. And sometimes I design my own materials and ideas. PS8: Again, technology skill and also creativity. PS10: I think creativity. PS11: Creativity and

				innovation. PS13: That is creativity and innovation. PS14: Creativity...
		Problem solving	2 (private)	PS7: Critical thinking. PS9: I can say critical thinking and problem solving from learning and innovation skills.
		Communication	2 (private)	PS9: I can say critical thinking and problem solving from learning and innovation skills. PS10: Problem solving.
		Collaboration	3 (2 state + 1 private)	SS3: I would say communication and collaboration is the most common one, followed shortly by information and technology skills. SS6: The most common skills I utilize are communication and collaboration. PS12: I think I use more communication skills.
	Information, Media and Technology Skills (21st century theme) Code: IMTS	ICT Literacy	3 (state)	SS3: I would say communication and collaboration is the most common one, followed shortly by information and technology skills. SS15: It's definitely collaboration. SS6: The most common skills I utilize are communication and collaboration.
	Life and Career Skills (21st century theme) Code: LCS	Flexibility and adaptability	3 (1 state + 2 private)	SS3: I would say communication and collaboration is the most common one, followed shortly by information and technology skills. PS1: The information, media and technology skill and media literacy skills are the most common skills that I utilize in my classes. PS8: Again, technology skill and also creativity.
		Initiative and self-direction	1 (state)	SS2: ...I think it is flexibility and adaptability...
		Social and cross-cultural skills	1 (private)	PS13: And also, reason effectively and manage goals and time.
	Encouragement as a student teacher to use	Collaboration Code: (COL)	1 (private)	PS5: ...I'd like to say social and cross-cultural skills...

21st century skills	Code: GRW	Peer interaction Code: (PIN)		–
	Technology (Emerged theme) Code: TECH	Technology integration in daily life Code: (TIN)		–
	Being a good teacher (Emerged theme) Code: BGT	Teaching successfully Code: (TS)	2 (private)	PS1: It can be group work. It has an encouraging effect on using the collaboration skill. For me, I can say that group work has an encouraging effect on using these skills in the classroom. PS11: I can say group work.
		To motivate future students to learn English Code: (MFS)	3 (2 state + 1 private)	SS3: It is usually followed by an interaction with my peers. SS15: I see my friends, they come up with really creative ideas and they kind of make me want to have these skills too. PS7: ...if I need to improve something later, my friends encourage me secondly. My friends encourage me about creativity. Thanks to them, I am encouraged to use my creativity skills.
		To compete with others Code: (CWO)	1 (state)	SS2: ...the source of this encouragement, I would say, is since almost everything in our lives has become connected to technology, somehow, this motivates me so much... So, since technology has become the main point of our lives, this gives me the motivation to do everything by using my 21st century skills.
		Being up to date Code: (BUD)	7 (3 state + 4 private)	SS4: But also, I want to be a good teacher. SS2: ...our teachers said to us, like, "If you do good projects here, you will be a great example for other students and you will actually provide for a better future". SS15: Sometimes my lessons don't go as I planned. So, I mean, that's one of the main reasons I think I should have these 21st century skills as a teacher, such as just like before I said, creativity and

				communication. PS5: And then I use them to achieve my goal. Let's say that maybe becoming a good teacher... PS10: The idea of being a good teacher. PS12: I need to use these skills to do my job properly. For this reason, I want to use and develop these skills in order to provide better education to children and raise them better equipped. PS13: I always think that rather than a teacher-centered lesson, it is more important and more instructive and more important to learn that students take an active role and make them think creatively.
		Teacher qualification Code: (TQ)	2 (1 state + 1 private)	SS4: Actually, people are not so willing to learn languages, especially when they are made to learn. We can change the way we teach, change the way we involve the students in their activities and make them love learning languages, learning English... That's why I'm motivated to benefit from 21st century skills while teaching. PS9: What motivates me to use 21st century skills is the student's motivation to fully understand, learn and apply in their life what I am teaching and trying to teach.
	Inner-self (Emerged theme) Code: INS	Self-motivation Code: (IM)	1 (state)	SS6: Actually, in this world, it is hard to compete with everyone. ...if you want to be the wanted person in the classroom...you have to have something different from the other people. So 21st century skills are important in that sense because we have to compete with so many people, so we have to have them.
	Undergraduate education (Emerged theme) Code: UGE	Departmental courses Code: (DC)	1 (state)	SS6: ...because also the students have different aspects in school right now. And we have to keep up with them. So, I think in a classroom environment we

				should be more aware of the students' perspective.
		Instructors' encouragement Code: (IE)	1 (private)	PS12: First of all, we need all of these skills today. Therefore, the idea that we should have these skills primarily provides motivation.
Competency in reflecting on the 21st century skills	Communication (Written) Code: (CW)	Competent	4 (1 state + 3 private) 1 (state)	SS3: Well, it usually comes from an internal desire to learn. PS5: I think my inner motivation PS10: At first myself, of course, because I should want it for trying or for solving something. PS13: Mine is my own inner incentive. SS4: ...when I came to university we started to design materials by ourselves and I started to find opportunities to use my creativity.
		Needs improvement	6 (2 state + 4 private) 12 (5 state + 7 private)	SS2: This is not exactly my encouragement, but our teachers said to us, like, "If you do good projects here, you will be a great example for other students and you will actually provide for a better future". SS3: ...our teachers are also very competent... And so, their effect is also very well appreciated, I would say. PS7: First of all, my teachers encourage me... PS8: My teachers usually. PS13: I can say that this awareness has increased both internally and thanks to a few teachers in the department. PS14: The thing that encourages me is usually my teachers. In general, teachers are people who set an example to students, and I am motivated to use these skills by taking examples from my teachers. SS2: ...I would say I am again pretty reflective on almost every skill here. ...So, I can use all of these 21st century skills and combine them into a big, nice pile of very great work

				afterwards. SS3: ...in the previous year we had a project... we had to create these tasks for the teacher, for learners, and we would have to write and maybe perhaps record audio or maybe images for that. So, while we were using the 21st century skills, we almost made use of every single one of them because they had to problem solve because it was a pair exercise. SS4: I think when it's about writing, I'm good at reflecting my skills that I think I have. SS6: ...I can say I have information media literacy... So, I adopt something from the Internet then I use it in my written assignments. SS15: ...I think I can reflect them in the assignments that I prepare. We are preparing lesson plans and I think I can use my productivity and problem solving and other skills. PS1: I can use my 21st century skills more easily as soon as I feel competent in terms of content in both written and oral assignments and feel confident. PS5: I can reflect my initiative and self-direction skills in my written assignments. I can manage my time and goals because we typically have a lot of assignments... PS7: I think I reflect more of my researcher identity. That's why I think I can reflect my information and media literacy skills. PS8: I think that I can reflect my creativity and innovation skills, one of the twenty-first century skills, in written assignments. PS9: I think I can reflect. Because we were given assignments which we needed to reflect our skills completely. In other words, we have to use it in all our
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				homework since we do this by taking these learning skills into consideration. I use my learning and innovation skills more in both written and oral assignments. PS13: I do not think that I am competent in written tasks. PS14: I express myself better in written assignments and I think that I can reflect my skills better.
	Communication (Oral) Code: (CO)	Competent	5 (1 state + 4 foundation)	SS2: ...I would say I am again pretty reflective on almost every communicative skill here. ...So, I can use all of these 21st century skills and combine them into a big, nice pile of very great work afterwards. PS1: I can use my 21st century skills more easily as soon as I feel competent in terms of content in both written and oral assignments and feel confident. PS9: I think I can reflect. Because we were given assignments which we needed to reflect our skills completely. In other words, we have to use it in all our homework since we do this by taking these learning skills into consideration. I use my learning and innovation skills more in both written and oral assignments. PS11: But in oral assignments I think I am good at it... I can say in our lessons and our demo lessons, we have presentations and I'm more confident in my presentations rather than writing. PS13: But when it is verbal, I can express things more.
		Needs improvement	3 (private)	PS10: Not much, but I think we can say that I am 50% competent. PS11: In writing assignments, I think I'm not, because I didn't get trained well... PS12: Unfortunately, I can't

				reflect 21st century skills too much on my assignments...
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APPENDIX F

Qualitative Data Coding Table

Priori coding list of ELT department academics' responses

Question	Main themes and codes	Sub-themes and codes	Frequency	Quotes
Important skills	All skills Code: AS	–	6 (4 State + 2 Private)	SA5: I think that each one of them is important. SA7: ...I would say, of course, all of them are important... SA10: I think all these skills are the most important ones. SA11: Well, actually, all of them are important for English language teachers... PA8: Well, I think. All in one. PA1: I believe that all the 21st century skills are relevant to English teachers who want to be successful in accomplishing the necessities of their occupation. PA3: I think all of them are important.
	Learning and Innovation Skills (21st century theme) Code: LIS	Creativity and innovation Code: CI	5 (3 State + 2 Private)	SA2: I believe the first few points that are important as 21st century skills are creative thinking, flexibility and technology use. SA9: Maybe as the second skill, I may add creativity and innovation, considering again teaching. English language teaching. SA11: ...if I have to pick a few of them, probably creativity would be very important for materials development and coming up with different activities to teach English to different age groups especially. PA3: Problem solving, critical thinking, creativity and life and career skills all together are so important. PA8: Creativity and innovation must be crucial for the English language teacher.
		Critical thinking	3 (2 state + 1 private)	SA6: The most important teaching skill of EFL is critical thinking. SA9: The first thing that comes up to my mind is critical thinking and problem solving. PA3: Problem solving, critical thinking, creativity and life and career skills all together are so important.
		Problem solving	2 (1 state + 1 private)	SA9: The first thing that comes up to my mind is critical thinking and problem solving. PA3: Problem solving, critical

				thinking, creativity and life and career skills all together are so important.
		Communication	1 (state)	SA7: ...but in this list, I think I will go for communication and collaboration because communication is the main resource that all language teachers have.
		Collaboration	1 (state)	SA7: ... I think I will go for...collaboration...
	Information, Media and Technology skills Code: IMTS	ICT literacy Code: ICTL	3 (2 state + 1 private)	SA2: I believe the first few points that are important as 21st century skills are creative thinking, flexibility and technology use. SA11: ICT is very important as well, especially in today's classrooms. PA4: Now, in our 21st century, technology has immensely developed, and this higher development in technology now forces the foreign language teachers to adapt themselves.
	Life and Career Skills Code: LCS	Flexibility and adaptability	2 (1 state + 1 private)	SA2: I believe the first few points that are important as 21st century skills are creative thinking, flexibility and technology use. PA3: Problem solving, critical thinking, creativity and life and career skills all together are so important.
		Initiative and self-direction	1 (private)	PA3: Problem solving, critical thinking, creativity and life and career skills all together are so important.
		Social and cross cultural skills	1 (private)	PA3: Problem solving, critical thinking, creativity and life and career skills all together are so important.
		Productivity and accountability	1 (private)	PA3: Problem solving, critical thinking, creativity and life and career skills all together are so important.
		Leadership and responsibility	1 (private)	PA3: Problem solving, critical thinking, creativity and life and career skills all together are so important.
	Reason of importance	Being a good teacher (emerged theme) Cod: BGT	1 (private)	PA1: Well, in our classrooms or even in language classrooms, we say that those skills should be promoted and if a person does not have those skills then they will not be able to transmit them or they will not be able to use them in the classroom. So, the students will not be able to develop with regards to these skills for each and every English language teacher

				who says that they're well-equipped as a professional should have these skills in their skill set apart from their occupational skills.
		Being up to date	3 (2 state + 1 private)	SA2: Especially with the developments in technology, as teachers, we need to be able to adapt ourselves to the recent innovations. SA10: ...teachers should always update themselves, their knowledge, their skills and follow the innovations. PA4: So, catching up with the inventions and applications of technology is a big problem for language teachers at the moment.
		Classroom management	3 (2 state + 1 private)	SA2: We have to think out of the box in most of the circumstances, especially if you are a teacher. You cannot guess what's going to happen in the coming minutes in your own class. That's why you have to think creatively to overcome the difficulties and to solve the problems. SA6: Because in the departments they are presented, they are provided with several language teaching courses. Different methods, different approaches. However, when they start teaching they should use these methods and approaches in an eclectic way. SA8: Well, every period has its own technology and methods and techniques, but one thing remains the same. That's creativity and innovation. If you are a good thinker, critical thinker, and if you are creative, you can overcome the difficulties of your time and place. Others may change, but if you have these two, you may act accordingly and solve the problems in the classroom.
		Communication as a skill	1 (state)	SA7:...their communication skills play a huge role because they are the main source of input for their students.
		Professional development	2 (state)	SA7: And collaboration is also very important for language teachers because the profession requires doing work with people, pursuing similar interests and collaborating for their own professional development... SA11: ...creativity would be very important for materials

				development and coming up with different activities to teach English to different age groups especially.
	Technology (emerged theme) Code: TECH	Use of technology	1 (state)	SA9: With the development of technology nowadays, we easily have access to information. But what we need is to be able to interpret it, make inferences, critical approach the kind of information we have access to.
	Student development (emerged theme) Code: STD	Student autonomy	1 (private)	SA3: So, whenever we do something with the student - because they're not autonomous- we have to provide some skills for them to use as life and career skills because they will need it in their future job opportunities.
		Student progress	1 (state)	SA7: And collaboration is also very important for language teachers and for the development of their students...
Competency of the prospective EFL teachers' skills	Competency (Emerged theme) Code: COM	Creativity and innovation	1 (private)	PA1: I believe they are creative.
		Critical thinking		—
		Problem solving		—
		Communication	2 (1 state + 1 private)	SA10: Communicating clearly and collaborating with others. Okay. This is a little bit dependent on their character. Some of them can communicate really clearly and they're very social... PA1: I believe in terms of communication and collaboration they are much better than my generation and the generation before that.
		Collaboration	1 (private)	PA1: I believe in terms of communication and collaboration they are much better than my generation and the generation before that. So, I may give them all over about 80% points in using this technology case.
		ICT	9 (6 state + 3 private)	SA2: In some of the points related to 21st century skills, they are definitely better than us. Let's talk about technology first. They're digital natives. SA5: I'm sure they are well equipped for information literacy and media literacy. They are digital natives. SA7: So, I would say they have ICT literacy or maybe multiple digital literacy. And this would also, I think, includes media literacy to some extent.

				SA9: ...I think because of the social media, the effects of the new technology, they seem to do better with these skills... SA10: Applying technology effectively, I find them really successful in this area. SA11: I think they are okay with ICT, most of them. PA1: In my classes, I really had not much of a problem with the use of technology. Most of my students are digital natives, more or less.....I think that they have media literacy, ICT literacy and information literacy. Because they were born into this technology. PA4: In my classes, I really had not much of a problem with the use of technology. Most of my students are digital natives, more or less. PA6: Naturally, thanks to technological innovations, not only ELT department students but all young people are competent at collaboration, communication and use of technology.
		Flexibility and adaptability	4 (3 state + 1 private)	SA2: ...their flexibility and their being digital natives makes it easy to get adapted to the new circumstances. SA10: I can say that they are flexible...They're adaptable for all kinds of changes. SA11: Well, Language teachers are usually good with this flexibility, adaptability. These skills are alright. PA1: They are more adaptable I believe, and they adapt the changes much more easily than the early generations.
		Initiative and Self-direction		–
		Social and cross-cultural skills	1 (private)	PA1: In terms of social and cross-cultural skills, I believe they're socially alright...
		Productivity and accountability		–
		Leadership and responsibility		–
	Needs improvement (Emergent theme)	All skills	1 (private)	PA3: So the level of my students in terms of competency in using 21st century skills are not so good or high...
	Code: NI	Creativity and innovation	2 (1 state + 1 private)	SA11: ...when it comes to doing something which requires critical thinking and creativity, mostly

			private)	they struggle with it. PA8: They need help. I mean, creativity and critical thinking and other skills.
		Critical thinking	4 (3 state + 2 private)	SA5: When I look at the critical thinking and problem solving skills of my students, some of them cannot pass certain judgments... SA9: I can say that because our students are so used to doing tests, selecting choices. So, there's too much dependence basically on choices. So, they come to the university, to our department with this behavior. And I can really see the negative effects of this. So, whenever I ask them to answer, for example, open-ended questions or whenever they have to write something beyond selecting, I can see that they have great difficulties, you know, let alone critical thinking. They're getting better at that, but they still need guidance I guess. They don't critically approach things. SA11: I think we've got serious issues with critical thinking skills. PA1: They also have some problems with respect to critical thinking... PA8: They need help. I mean, creativity and critical thinking and other skills.
		Problem solving	4 (2 state + 2 private)	SA5: When I look at the critical thinking and problem solving skills of my students, some of them cannot pass certain judgments... SA10: I see them a little bit problematic in terms of solving problems....I'm not sure about their problem-solving skills and how they will make judgments and decisions. I mean, the right decisions....right now, they are a little bit problematic in this area. PA1: So, they have some problems in terms of critical thinking plus problem solving. PA3: They're not good at problem solving.
		Communication	2 (state)	SA1: I don't think they are ready for collaboration and communication and it is also a problem for our university. SA10: Communicating clearly and collaborating with others. Okay.

				This is a little bit dependent on their character. Some of them can communicate really clearly and they're very social. ...but some of them are not this way. They are more introverted and they have problems with talking, organizing their ideas, communicating clearly...
		Collaboration	4 (3 state + 1 private)	SA1: I don't think they are ready for collaboration and communication and it is also a problem for our university. SA9: I think we have a long way to go with.....collaboration. We had a lot of problems with group work. They don't really know how to collaborate basically with each other. SA10: And collaborating with others... Okay, a general tendency... Of course, again, this is a very individual thing, but this new generation, they seem to like more to be individual, not avoid others. Work by themselves. So we should encourage them, I think, more to collaborate with others. They don't like that. They don't even appreciate group work. So there is a tendency to work individually and not collaborate with others. PA4: They wouldn't collaborate very much with the others.
		ICT	2 (state)	SA2: But the disadvantage may be using technology for educational purposes. ...for more formal issues, they may not be prepared enough or skilled enough. SA5: But I actually have a question mark for their media literacy skills. Especially in the academic area, they tend to believe everything they find on the Internet. Now we have a lot of information. We have lots of articles published on different issues of language acquisition....So, our students sometimes don't have that media literacy in terms of academic texts.
		Flexibility and adaptability	1 (private)	PA1: In terms of life and career skills, I don't think that we are raising students who are too flexible. If I think of my own students, when they get stuck, they get stuck. They don't have a plan B or C. So maybe they might lack

				a bit of flexibility.
		Initiative and self-direction	2 (1 state + 1 private)	SA10: ...they are a little bit problematic in terms of managing goals and time, interacting effectively with others and working in diverse teams is a problem... PA1: I see problems with respect to self-direction.
		Social and cross-cultural skills	2 (1 state + 1 private)	SA10: ...interacting effectively with others, working effectively in diverse teams. I mean, these are the things that we should work more that I find these places that are a little bit poor, they're a little bit poor. PA1: In terms of social and cross-cultural skills, I believe...they lack the cross-cultural skills.
		Productivity and accountability	1 (private)	PA1: To speak about productivity and accountability, I think we have problems with respect to productivity.....They mainly concentrate on their grades rather than the process, which is the learning itself.
		Leadership and responsibility	1 (private)	PA1: In terms of leadership and responsibility. I think only 10% of our students have a leadership quality.
	Effects on student competency (What are the influences or effects on students' use of 21st century skills) (Emerged theme) Code: ESC	Instructors influence (Designing classrooms that students are able to show their skills)	7 (5 state + 2 private)	SA5: Also in our education system, we are not totally student centered. We are still very, you know, teacher centered. Yes. Again, we don't ask students. We don't invite them into decision making in their education. We make the decisions for them. So, we should start even in universities for academics to develop themselves in this matter to share their power in the classroom with the students. SA6: ...they are not very competent. Because our education system in schools before they come to universities is not enough to develop their 21st century skills. SA7: ...I am doing explicit instruction on these topics, so I'm not entirely sure how prepared they attend my courses... SA9: ...that's also because of the way the course is designed. They have to always design activities using their creativity... SA10: So we should encourage them... more to collaborate with

				others. PA1: So, the teachers might be the ones responsible when students lack creativity and innovation. I mean they are all creative and they are all innovative, but maybe not designing classrooms in which they can show this to us.....maybe it's the fault of our side as the teachers that we are not designing an atmosphere or activities where they can show all these skills together. PA8: ...how can we help? Is it our problem only? I'm not sure about it. Collectively, these are actually skills that must be taught by all the teachers, not only English teachers.
Most common utilized skill(s)	Learning and Innovation Skills (21st century theme) Code: LIS	Creativity and innovation	4 (3 state + 1 private)	SA6: Innovation skills. Because especially in micro-teaching activities, they need to use their innovation skills to create fruitful and interactive materials. SA7: And creativity and innovation is of course a target... SA10: They think creatively. They are creative thinkers. PA1: They are creative and innovative because they have all the means with the technology that they have.
		Critical thinking	1 (private)	PA1: What they want to utilize is critical thinking and problem solving when you give them the opportunity.
		Problem solving	2 (1 state + 1 private)	SA2: ...they are innovative, especially in our field. They are innovative in finding solutions. PA1: What they want to utilize is critical thinking and problem solving when you give them the opportunity.
		Communication	3 (state)	SA2: I think they are generally good at communication skills, especially with their peers. SA11: And communication and collaboration as well. SA7: ...communication and collaboration is also very central because usually I ask them to work in groups...
		Collaboration	3 (state)	SA6: ...they use their collaboration skills to generate ideas and to prepare effective teaching materials, as well as taking or making notes for their own. SA11: And communication and collaboration as well.

				SA7: ...communication and collaboration is also very central because usually I ask them to work in groups...
	Information, Media and Technology Skills (21st century theme) Code: IMTS	ICT Literacy	10 (6 state + 4 private)	SA5: Information, media, and technology skills. SA6: ...they also use technological skills in order to attract the attention of their prospective students when they start teaching in their schools. SA7: ...the primary one would be, I think, ICT literacy. SA9: I think applying technology, I would say. SA10: I think they are good at information, media and technology skills. SA11: They use basically ICT quite a lot. PA1: They are literate in terms of information media and ICT.....Because they are digital natives. PA3: ...information, media and technology skills are the common ones to use for the students. PA4: Information, media, and technology skills. PA8: ...technology skills, at least some of them are more competent compared to other fields.
	Life and Career Skills (21st century theme) Code: LCS	Flexibility and adaptability	1 (state)	SA9: I think technology, cross-cultural skills, maybe flexibility and adaptability seem to be the most common as far as I have observed.
		Initiative and self-direction		—
		Social and cross-cultural skills	1 (state)	SA9: I think technology, cross-cultural skills, maybe flexibility and adaptability seem to be the most common as far as I have observed.
		Productivity and accountability		—
		Leadership and responsibility		—
	Encouragement for students to use 21st century skills	Peer collaboration	6 (4 state + 2 private)	SA2: For group works in our field, in classroom, in language learning and teaching, pair work and group work, it's very necessary for communication because in its simplest definition, language is a tool for communication.....That's why I advise them to take part in the group as much as possible. SA5: Communication and collaboration. We want them to

			work together in groups because we have large classes. SA7: ...we also do a lot of international partnerships. So, when this is the case, communication and collaboration gets to another level and some, well, technological skills are also involved.....A tele-collaboration that changes into international collaboration is the way to do it. SA10: Collaborating with others, I often make them work in groups and force them to collaborate with others. Although they don't like this so much. PA1: They do think critically when you form groups and they collaborate, they communicate and they think critically together. In terms of social and cross-cultural skills, social skills are tracked to be foster to pre-work or group work of activities. I didn't allow them to be on their own when there's a group work activity. I make sure that each and every one of them was in a different group so that the students engaged in cross-cultural communication. PA4: I am also teaching democratic leadership to make them understand that the teacher is the leader not the controller. He's going to make the students collaborate with each other, talk in class. And he will be a reviewer or a mediator. This is the use of leadership and responsibility skills in class as a teacher.
		Guided instruction	2 (private) PA1: Through activities where you can ask a question and they give creative and innovative ideas and answers. PA3: ...even if they're not high enough to get all the core elements of how to be a student in the 21st century, I am giving all the opportunity to give my materials or my teaching combined with the 21st century skills by using critical thinking questions or some projects with problem solving. I am asking some questions before we start the lesson and then after we finish the lesson. So, in between they are commenting. I'm reading that and I am preparing some kind of questions after that, before the other lesson starts.

				Because of that, we are communicating or we are all collaborating on the subject. So this is some kind of encouragement for the students.
		Speaking class	1 (private)	PA1: The easiest class that I can apply these or I can give opportunities for students to show these skills collaboratively is the speaking class.
	Motivating Students (emerged theme) Code: MST	Showing the necessity of the skills	2 (state)	SA2: First of all, if they are weak at some 21st century skills, I need to tell them, first of all, what they are and why they are important, because we are as human beings, we are pragmatic creatures.....If we think that it's not something useful, we neglect it. That's why if they understand the necessity and use of some 21st century skills, they stick to them. SA6: Before I start teaching in every semester, within the first and second sessions of my classes, I introduce 21st century skills to my students giving some concrete examples from an EFL classroom. These examples are sometimes negative, sometimes positive in order to attract their attention to comprehend what are the 21st century skills and what aren't.
		Use of media and other sources in the classroom	4 (2 state + 2 private)	SA5: For information, media, technology, I ask them to educate me. I ask them to include something digital in their lessons and show me how, you know, so that I also learn. And I think it gives them some kind of satisfaction. It's not that the teacher is teaching. We are helping her too. So, I try to enhance that through this. SA6: ... giving references to the 21st century skills I display using slides or writing on the board. PA3: For creativity and critical thinking, I make them watch some videos that I chose before I create the syllabus. For example, TEDTalks videos or some kind of career related videos that can encourage themselves or motivate them... PA8: When I teach, for example, I teach such as media English. We use this technology and they have access to the recent news around the world and they enjoy it. In this respect, if you have these skills,

				information, media and technology skills, it helps them a lot to keep up with the rest of the world so they enjoy it.
		Encouraging talks in using 21st century skills	3 (2 state + 1 private)	SA2: They need to learn how to overcome the difficulties. This is a social skill. This is a problem-solving skill, and this is a cooperation. And I encourage them by saying “Okay, you can do it. Why not? If I can do it, you can do it as well. I’m a human being as well, from flesh and bone. So, you are the same. I have gone through the same process and you will go through the same process”. And when they try, when they achieve, they increase their self-confidence. SA5: I also tell them that “In the class, your biggest weapon is your creativity. This is how you can get students’ attention and sustain it”. PA3: I also encourage them to distribute the leader role and the job responsibilities. The reason why is because the students are not the students in my lessons, they are teachers, communicators, collaborators or problem solvers. I make sure they remember that. So, they have to get all the responsibilities in one. These are the life and career skills that we have to give to our students.
	Instructional Strategies (emerged theme) Code: INS	Open discussions	3 (2 state + 1 private)	SA6: I do my best to provide an open discussion method for the students to compare and contrast their opinion, giving references to the 21st century skills I display using slides or writing on the board. In this way, I assume that my students will make use of the 21st century skills in different contexts of their educational life. SA10: Sometimes it’s like oral assignments. I give them argumentative topics and they discuss about those topics in groups like one group for and one group against the idea. But in order to do the debate, they work together beforehand. PA4: ...you need to develop speaking skills so that students may develop themselves in terms of communication skills. I ask them “Is happiness based on money?” They said yes. If they say that, you are going to make them suspicious about it. This way

				you may shake. Break down their ideas so that they can be a little bit changed. This way you do your critical thinking.
		Giving assignments	5 (4 state + 1 private)	SA5: I believe I am making a difference by the end of the semester in terms of creativity. They prepare micro-teaching and I really ask them to find something out of the box, not regular exercises. So, it pushes them to think. So, I believe they are getting creative. I give spontaneous assignments, something they cannot find or copy. SA9: ...so I teach methodology classes. So, they have to produce, they have to reflect on the materials, they have to evaluate, critically evaluate the materials. So that's why I make sure that I don't I don't use tests or don't ask them some information based questions, but I engage them in some critical thinking, creative activities, etc. SA10: I encourage them to think creatively. I ask... I mean, I give them projects or papers or essays with prompts which force them to think creatively.....they are designing classrooms. They are making lesson plans. SA11: I give them some reading articles and try to ask them some critical questions so that they have to think critically to answer those questions. And to support creativity, I am requiring my students to come up with their own ideas to prepare materials for young learners or to use already existing materials in innovative ways. PA1: In respect to flexibility and adaptability in both courses, I foster through in-class or out of class assignments.
		Reflections	1 (state)	SA11: I think the most problematic area is critical thinking and creativity. So I try to encourage using these skills. How I do this is usually integrating reflective practice to my classrooms. So whenever they do something, even if it is a presentation, it's a micro-teaching. I ask my students to write a reflective paper and write a

				reflective paper on their friends' presentations as well.
Competency in reflecting on the 21st century skills	Written assignments (emerged theme) Code: CWA	Competent	3 (state)	SA2: ...teaching experience and micro teachings that they have done, at the end of the fourth year, I can say that they are competent enough. They are not fully competent, but competent enough in expressing themselves orally and in written format. But this development is an ongoing process. But I can definitely say that through the fourth-year period they have a very satisfactory process both in written and oral communication. SA7: They do reflect to some extent. Regarding critical thinking and problem solving they are competent. SA9: In general, they seem to be competent.....in time I can see that they're getting better and better.
		Needs improvement	8 (4 state + 4 private)	SA5: I believe the reflection part is very weak because they are not aware of that kind of organization. SA6: In my exams, the students are not able to convey their ideas successfully because of their educational background, which is a lack of developing their reading and writing skills. S10: ...while writing or doing research, they just copy and paste whatever they see on the Internet. They don't question the source. SA11: creativity, innovation, critical thinking and problem solving are the things that they can't reflect very well in either oral or written assignments. I'm not saying that they're terrible at it, but they need some support to get better at them. Apart from these two, maybe media literacy is a problem for some of our students. Not all of them. Some of them are still struggling to decide which resources are reliable, which resources are not reliable... PA1: But when it comes to writing, sometimes some students are not able to do the necessary research on the topic for their assignments. PA3: They're not competent at all. We are pushing them to use the 21st century skills, but whenever you're not pushing, they easily quit

				using them. PA4: Once again, my students at this private university are a little bit low, but my students at a state university were higher. In teaching foreign languages at a foundation university, I would rate my students around 90 out of 100. But at the private university, 50 points out of 100. In their assignments, I see that they want to pass over the course with being okay for the lowest mark. They don't give any extra effort. They only show moderate skills. PA8: They are not competent enough, so we should help them.
	Oral assignments (emerged theme) Code: COA	Competent	4 (3 state + 1 private)	SA2: ...teaching experience and micro teachings that they have done, at the end of the fourth year, I can say that they are competent enough. They are not fully competent, but competent enough in expressing themselves orally and in written format. But this development is an ongoing process. But I can definitely say that through the fourth-year period they have a very satisfactory process both in written and oral communication. SA7: They do reflect to some extent. SA9: In general, they seem to be competent.....in time I can see that they're getting better and better. SA11: I think they are very good at doing the oral assignments by using communication and collaboration. They're very good at this. PA1: In oral assignments, they can show most of them. For example, if I do not assign a co-assignment, they might not show collaboration when they are executing their presentation. But I know that they communicate and collaborate when preparing their assignments as well. So, in speaking, or in oral assignments, they actually show all of these skills.

		Needs improvement	6 (3 state + 3 private)	SA5: I believe the reflection part is very weak because they are not aware of that kind of organization. SA7: Well, unfortunately, we don't have any explicit instruction on 21st century skills, so I'm not sure if they are aware of what they are doing. SA10: ...their reflections were oftentimes, again about their problems with collaboration. And communicating clearly is another problem. For example, they're preparing presentations and I realize that they cannot communicate clearly. They have difficulty in organizing their ideas while delivering a speech. PA3: They're not competent at all. We are pushing them to use the 21st century skills, but whenever you're not pushing, they easily quit using them. PA4: Once again, my students at this private university are a little bit low, but my students at a state university were higher. In teaching foreign languages at a foundation university, I would rate my students around 90 out of 100. But at the private university, 50 points out of 100. In their assignments, I see that they want to pass over the course with being okay for the lowest mark. They don't give any extra effort. They only show moderate skills. PA8: They are not competent enough, so we should help them.
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