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Investigating EFL secondary stage teachers' perceptions and instructional practices of 21st century skills based on some demographic characteristics

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Abstract:

The primary aim of this study was to explore EFL teachers' perceptions and teaching practices related to 21st century skills and reveal whether there are differences in their perceptions in terms of some demographic characteristics (i.e. gender, years of experience and school type). To illustrate, the targets of the study were to find out (1) how teachers perceive some skills, namely critical thinking, communication, collaboration, creativity, self-directedness and digital literacy, (2) how often they develop these skills and (3) whether these perceptions significantly differ in terms of the demographic characteristics mentioned above. Methodologically, this mixed-methods study included quantitative and qualitative data collection instruments (a multi-section questionnaire and reflective journals). A group of in-service EFL secondary school teachers (N=130) agreed to take part in the study. The results showed that athough the majority of the participants demonstrated positive perceptions toward the skills, their teaching practices were still poor. This means that inconsistency was found between how they perceived the skills and how often they taught them. The communication skill was the most frequently integrated skill, while the self-directedness skill was the least one. Moreover, statistical analyses showed significant differences between teachers' perceptions of 21st century skills based on demographic characteristics. This indicated that future in-service training programs should put those characteristics into consideration. Qualitative analyses of teachers' reflective journals provided more evidence for their need for training on how to properly integrate the skills in secondary school EFL classrooms.

Keywords: *EFL teachers' perceptions, EFL instructional practices, 21st century skills, demographic characteristics*

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الملخص:

تمثل الهدف الرئيس من البحث في الكشف عن تصورات معلمى اللغة الإنجليزية بالمرحلة الثانوية حول مهارات القرن الحادي والعشرين، ومدى ممارستهم للانشطة التي تسهم في تنمية تلك المهارات، وكذا البحث حول تاثير بعض الخصائص الديموجرافية (الجنس وسنوات الخبرة ونوع الدراسة) في تلك التصورات. وبعد تطبيق أدوات الدراسة المتمثلة في استبيان متعدد المحاوروالكتابات التأملية على مجموعة من معلمى اللغة الإنجليزية بالمرحلة الثانوية (ن=١٣٠) تبين ان للمعلمين تصورات إيجابية تجاه تلك المهارات. جاءت مهارتا التواصل و التنور الرقمى كأهم المهارات وفق تصورات المعلمين، بينما جاءت مهارتا الابتكار و التوجيه الذاتي كأقل المهارات أهمية. وعلى الرغم من أن التصورات كانت في مجملها إيجابية، جاءت الممارسات التدريسية متوسطة المستوى مما يكشف عن الحاجة لعقد دورات تدريبية للمعلمين أثناء الخدمة، وإعادة النظر في برامج اعداد معلمى اللغة الإنجليزية بهدف تحسين ممارساتهم التدريسية بما يتماشى مع تنمية تلك المهارات. كشفت النتائج عن أن الممارسات التدريسية التي تدعم مهارتى التفكير الناقد و العمل التشاركى هي أكثر الممارسات تنفيذا في الصف ، بينما كانت الممارسات الموجهة لتنمية مهارة الابتكار الأقل شيوعا. كما تبين أن هناك تباينا بين المعلمين في معظم التصورات المرتبطة بمهارات القرن الحادي والعشرين قياسا على الخصائص الديموجرافية سالفة الذكر ، مما يشير الى أهمية مراعاة تلك النتائج عند تصميم البرامج التدريبية للمعلمين أثناء الخدمة.

الكلمات المفتاحية: *تصورات المعلمين، مهارات القرن الحادي والعشرين، الممارسات التدريسية، الخصائص الديموجرافية.*

Introduction:

During the 20th century, education systems across the world focused on preparing their students to accumulate content and knowledge. As a result, schools focused on providing literacy and numeracy skills to their students, as these skills were perceived as necessary to meet the demands of that period. However, an accelerating pace of change in economy and technology, increasing globalisation and internationalisation; and the shift from industrial social economies to information and knowledge-based social economies have effects on the demands of the educational system preparing students for the workforce (Prasetyo, Suryono & Gupta 2021). Therefore, while skills such as literacy and numeracy are still relevant and necessary, they are no longer sufficient. At the end of 20th century, a number of efforts were undertaken to identify and outline the competencies and skills required for operating in the new millennium, and for facing challenges in the present and the future. These skills were popularly termed as 21st century Skills.

There is a growing global recognition that 21st century knowledge and skills not only build upon core content knowledge, but also include information and communication skills, thinking and problem-solving skills, interpersonal and self-directional skills, and the skills to utilize 21st century tools, such as information and communication technologies (Fandiño Parra,2013). As a reaction to the increasing demand to these skills, a great number of countries have already reformed their education system and reconstructed their school curricula to change teachers' traditional pedagogic practices to those required for teaching and learning in the 21st century as indicated by Joynes, Rossignoli and Fenyiwa (2019), Albahlal (2019) and Kelimeler (2019). In the same vein, Bedir (2019) and Bolat (2022) state that these skills have taken their place in the curriculum objectives of many countries. Therefore, teachers need to be knowledgeable about 21st century skills and experts in integrating them in language teaching.

English as a foreign language (EFL) instruction is not far from that. It is a dynamic process influenced by time metamorphosis and the outburst of technological developments. Reading and writing are not enough anymore. The 21st-century citizens, including EFL learners, need to critically interpret a multimedia culture and express themselves in more creative forms to pave the way for mastering lifelong experiences apt to a persistently changing world (Kharboush,

2021). Over the past few decades, English has been used in many areas of life all over the world such as global media, scientific and ICT advancements, diplomacy, and entertainment. As Pardede (2012) pointed out, 85% of global institutions in the world officially use English, and 90% of academic articles are in English.

As a result, English is not only a language spoken by native speakers, but also the language of international communication. Non-native English speakers are required to use English for more complex purposes such as international communication and cooperation, presenting complex ideas, and interpreting rapidly changing information. Therefore, the aim of language teaching has been changed from just deciphering messages to actively use language by employing 21st century skills in the ever changing digitized world. The English language classroom today needs new sets of skills to prepare learners to be successful participants in the globalized society of the future. In this regard, the focus of English language teaching in the 21st century needs to deviate from traditional methods (Çınar, 2021 & Pardede, 2020). In line with this, Fandiño-Parra (2013) argues that 21st century skills and English teaching must go hand in hand. English language classes should transcend pouring information from textbooks into students' minds to transfer those skills that provide them with opportunities to analyze, criticize, and synthesize new knowledge and skills especially in the age of knowledge explosion. Therefore, Kelimeler (2019) posits that teachers of those classes should acquire the basic knowledge and skills to help their students acquire what is referred to as 21st century skills.

However, for traditionalist teachers, those skills are still a mystery to most of them. They, therefore, either do not have enough knowledge and/or skills on how to integrate them in their language classes, or simply neglect them altogether as they still believe those skills are irrelevant to the basic art of language teaching (Kusmarni, Winarti & Yulianti, 2019). Febiana (2019), Haviz et al. (2020), Mohammed and Kinyo (2020) and Paschal and Gougou (2022) note the teaching contextual challenges regarding the pedagogy, class size, ICT integration, multilingualism, teaching resources, and opportunities of practices required a qualified teacher who is able to cope with this transformative teaching context with the existence of these challenges. In addition, a multitude of frameworks have been formed to identify the 21st century skills. As a result, they have been variously defined and categorized. These skills are a blend of content knowledge, specific skills, expertise, and literacies necessary to succeed in work

and life. In summary, these skills are multi-faceted and a mixture of personal and interpersonal skills. In addition, they highlight life-learning skills and use of technology.

Review of literature:

1. Definitions of the 21st century skills:

The need to clearly define 21st century skills has led to various interpretations ranging from thinking skills to information and media literacy and social media. These skills are those required to succeed in the workplace such as collaboration, decision making and communication. Redmond (2016:33) defines them as 'the knowledge, skills and attitudes necessary to be competitive in the twenty-first century, participate appropriately in an increasingly diverse society, use new technologies and cope with rapidly changing workplaces". Supporting the same perspective, Saleh (2019:47) and Prasetyo, Suryono and Gupta (2021:2) view 21st century skills as the knowledge, skills, and expertise necessary for individuals to fully participate in the digital world and global community of the 21st century. In the same context, Joynes, et al. (2019) indicate that analysts generally use the term 21st century skills as a broadly encompassing concept referring to multiple skills or subcategories of skills. It is an overarching concept for the knowledge, skills and dispositions that citizens need to be able to contribute to the knowledge society.

Some definitions tend to clarify the term by listing its constituents. In her systematic review of studies on 21st century skills, Chalkiadaki (2018:4) defines them as 'encompassing a broad range of skill sets and professional attributes, including: creativity, divergent thinking, critical thinking, team working (especially in heterogeneous groups), work autonomy, developed cognitive and interpersonal skills, social and civic competences, responsible national and global citizenship, consciousness of interdependence, acceptance and understanding of diversity, recognition and development of personal attributes, interactive use of tools, communication in mother tongue and foreign languages, digital competence, sense of initiative and entrepreneurship, and cultural awareness'. These skills are of cognitive, personal and interpersonal nature.

Reviewing related literature unveils a group of problems in defining the target skills. First, lack of consensus leads to discrepancy in weaving the skills into the process of teaching and continues to present numerous practical challenges when it comes to the design and implementation of educational approaches for the teaching and learning of these skills (Kim et al., 2019). Working collaboratively, one

of the target skills, needs unifying the vision and working for a shared clear goal. This unifying vision is a condition for success in developing these skills. Many educators such as Suto and Eccles (2014) argue that the concept encompasses a wide-ranging and amorphous body of knowledge and skills that is not easy to define and that has not been officially codified or categorized. This state can lead to divergent interpretations and hinder the ways in which such skills are taught. Therefore, no single widely-accepted definition of '21st century skills is provided and adopted internationally due to diversity of agendas held by different educationalists, teaching unions, and education institutions (Trejo and Galindo, 2022).

Second, the literature is also not conclusive on the differences between these skills and other related ones. Many terminologies associated with 21st century skills – most particularly, 'life skills', 'soft skills', 'transversal skills, 'critical skills' and 'digital skills' – are often regarded as synonymous with 21st century skills, despite some significant diversity across a range of personal, professional and practical attributes (Suto & Eccles, 2014). For example, some definitions use the terms 21st century skills and digital skills interchangeably though there is some significant conceptual crossover between the two. Combining the two, Van Laar et al. (2017) introduced the concept of '21st century digital skills'. Lewin and McNicol (2015) also examined the relation between ICT skills and 21st century skills and concluded that it is at the core of the majority of frameworks. Therefore, Kustini, Suherdi and Musthafa (2020) call attention to more integrative approaches where the development of ICT skills is embedded within other 21st century competences.

Third, most of the definitions considerably focus on the cognitive skills that the learner needs for the increasingly changing era. The affective aspect including values, attitudes is also essential for ensuring a holistic perception of the skills. This was considered in some frameworks such as the KSAVE model that will be discussed later. In short, while the term is widely used in education, it is not always defined consistently. The 21st century skills can be considered a mixture of cognitive and non-cognitive constituents that learners should be equipped with to cope with demands of this century and to be successful in workplace and life. The non-cognitive constituents include the social, affective and technological aspects among others. In order to structure the analysis of 21st century skills, several conceptual models have been created. The literature on 21st century skills is quite

rich. In some studies, the skills are listed individually, while in other studies the skills are situated into frameworks.

2. 21st Century Skills Frameworks:

Within the examined literature, there is general agreement across the researchers on the need for new forms of learning to tackle global challenges (Joynes et al., 2019). However, despite this consensus, there is no unique approach to the definition of '21st century skills' as discussed before. Accordingly, multiple sources identify a variety of competencies and skills and a broad range of attempts to synthesise them according to analytical frameworks. The main aim of these frameworks is to highlight the most essential skills for the 21st century learners and, for some of them, cluster and organize them into groups. Such grouping may help practitioners to develop these skills and assess learners. In the following, some of the most widely used frameworks, namely P21, ATC21S, 3Rs, TPACK and ETCF are displayed then commented on.

a. Partnership for 21st century learning (P21) framework:

The Partnership for 21st Century Learning Skills has established a structured vision for the skills which are crucial for students' success in life and work. Four skill areas have been identified to outline the 21st century students' outcomes which are: (a) key subjects and 21st century themes, (b) life and career skills, (c) learning and innovation skills: the 4Cs (i.e., critical thinking, communication, collaboration, and creativity) and (d) information, media, and technology skills (Alzahrani & Nor, 2022).

This Framework is a blend of content knowledge, specific skills, expertise and literacies. While the graphic represents each element distinctly for descriptive purposes, the partnership views all the components as fully interconnected in the process of 21st century teaching and learning. The following diagram displays the P21 skills including the 4Cs in addition to digital literacy and career and life skills.

Learning and Innovation "The 4 C's"	Digital Literacy	Career and Life
Critical thinking & problem solving	Information literacy	Flexibility & adaptability
Creativity and innovation	Media Literacy	Initiative & self-direction
Communication	ICT Literacy	Social & cross-cultural interaction
Collaboration		Productivity & Accountability
		Leadership & responsibility

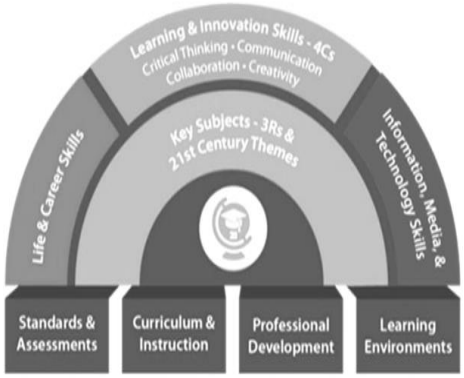


Figure (1) The P21 skills framework (Source: Tai, 2023)

As figure (1) shows, students are to master some key subjects and interdisciplinary themes. These four competencies are applicable across various domains to enhance individuals' thinking, learning, work, and daily lives. The 4Cs serve as versatile tools applicable across various domains to enhance individuals' thinking, learning, work, and daily lives. They include communication (the ability to express thoughts clearly and persuasively both orally and in writing, articulate opinions, communicate coherent instructions and motivate others through speech), collaboration (working together towards a common goal), critical thinking (reasoning effectively, using system thinking, making judgements and decisions and solving problems) and creativity (the capacity to generate new ideas and solutions, pose unfamiliar questions and arrive at unexpected answers).

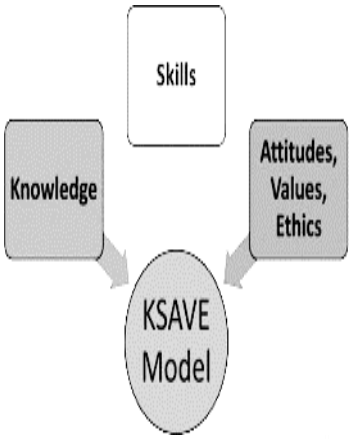
The last category of skills is life and career skills, which are composed of flexibility and adaptability, initiative and self-direction, social and cross-cultural skills, productivity and accountability, and leadership and responsibility. According to Tai (2023), students having these life skills are supposed to adapt to change, be flexible, manage goals and time, work independently, interact effectively with others, and work efficiently in diverse teams. (Şahin & Han, 2020).

b. The Assessment and Teaching of 21st Century Skills Model (ATC21S):

This international project created a model that defined ten universally accepted 21st century skills into four broad categories of competencies (Kusmarni, Winarti & Yulianti, 2019). Ways of thinking include 1) creativity and innovation, 2) critical thinking, problem-solving, and decision making, and 3) metacognitive skills. Ways of

working include 1) communication and 2) collaboration. Then, tools of working consist of 1) information literacy, and 2) technology literacy. Whereas living in the world includes: 1) local and global communities, 2) life and career, and 3) personal and social responsibilities.

ATC21S abbreviates 21st century competencies as 'KSAVE' (knowledge, skills, attitudes, values and ethics). The KSAVE model, as described by Şahin and Han (2020), comprises knowledge (all references to specific knowledge or understanding requirements for each of the ten skills, skills (the abilities, skills and processes that curriculum frameworks are designed to develop in students and which are a focus for learning) and Attitudes, Values, Ethics (the behaviors and aptitudes that students exhibit in relation to each of the ten skills).



Broad Competencies	Ways of Thinking	Ways of Working	Tools for Working	Living in the World
Universal Skills	Creativity and Innovation Critical thinking, Problem Solving, Decision Making Learning to learn, Metacognition	Communication Collaboration and Teamwork	Information Literacy Research of sources, evidence, biases ICT literacy	Local and Global Citizenship Life and Career Personal and Social Responsibility Cultural Awareness and Competence

Figure (2) KSAVE Conceptual framework according to ATC21S (Source: Prasetyo, Suryono & Gupta, 2021).

This framework is categorized by many researchers as one of the most comprehensive frameworks that have been developed throughout the world. According to Prasetyo et al. (2021), this framework provides 21st century learning outcomes' descriptions in measurable forms. The division of this model reflects the balance needed between cognitive and non-cognitive dimensions. In this way, this model is similar to the one proposed by Chalkiadaki (Joynes et al., 2019). Chalkiadaki's model provides a broad range of 21st century skills into four main categories as follows: personal skills (e.g, self-development, creativity, problem solving and self-regulation), social skills (e.g. skilled oral and written communication in the mother tongue and foreign languages, team-working, open-mindedness, and conflict management), information and knowledge (e.g. knowledge

construction, social and collaborative learning) and digital literacy including critical use of digital tools and the ability to attend to ethical responsibilities required in participatory culture in technology. Foreign language has been prioritized in this model for its mutual relationship with other skills like communication and digital literacy. Both models incorporate personal and social skills necessary for learners in their career and academic life. Furthermore, they focus on thinking, languages and information as key factors to survive in this century.

c. The other 3Rs framework:

In the 20th century, those individuals who were adept at 3Rs (reading, writing and arithmetic) were recognized as successful in the world of work and society. Accordingly, the education system was shaped around the expectation of the world of work. Thus, students were supposed to memorize known. In accordance with this expectation, curriculum contained digested facts and simple arithmetic calculations (Prensky, 2014). With the advancement of ICT and globalization, the world has changed drastically and there has been a need for skills different from those needed in the 20th century. In this context, Joynes et al. (2019) argue that the skills that might be developed in the 21st century are 'The other 3Rs' referring to Reasoning (analytical, critical thinking and problem-solving skills), Resilience (life skills such as flexibility, adaptability and self-reliance) and Responsibility (wisdom or the application of intelligence, creativity and knowledge for a common goal).

Similarly, Kozikoğlu and Babacan (2019) indicate that Wagner's model includes other 3Rs: Rigour, Relevance and Respect. 'Rigour' refers to the academic abilities and capacities students acquire as a result of their learning; 'Relevance' refers to their understanding of how their learning connects to current real-world challenges and future work; and 'Respect' refers to the promotion of respectful relationships among teachers and students that foster academic and social competence. Though the two frameworks differ in the meanings of their symbols, they are similar in their interest in learning skills and highlighting the relationship with real world challenges. This goes in line with the early prediction of Kreber (2010) that contemporary trends will redefine the formation of skill sets and development among high school students.

d. Technological Pedagogical Content Knowledge (TPACK):

Notable efforts were conducted by The American Association of Colleges of Teacher Education (AACTE) to describe the kinds of knowledge needed by teachers for effective integration of technology

in all content areas. It argues that effective technology integration requires understanding and negotiating the relationships between three components: technology, pedagogy, and content (AACTE, 2008).The framework underlines the connections and interactions between and among content knowledge (subject-matter that is to be taught), technological knowledge (computers, the internet, digital video, etc.), and pedagogical knowledge (practices, processes, strategies, procedures and methods of teaching and learning) to improve student learning.

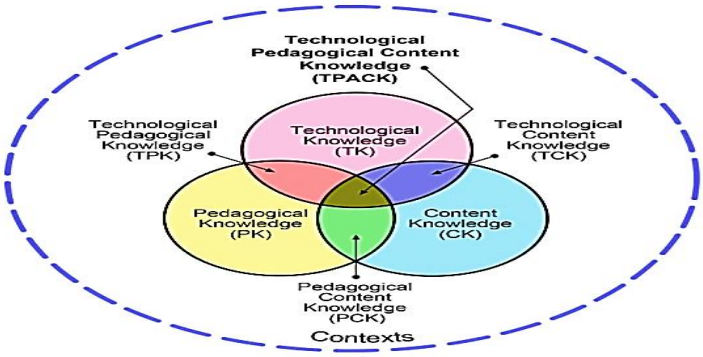


Figure (3) Schematic representation of the TPACK model (Source: Kohler, 2011)

As shown in figure (3), the three basic knowledge that a teacher should have according to the TPACK framework are Technological Knowledge (TK), Pedagogical Knowledge (PK) and Content Knowledge (CK). The intersection of these three components that are Pedagogical Content Knowledge (PCK), Technological Pedagogical Knowledge (TPK), Technological Content Knowledge (TCK) and Technological Pedagogical Content Knowledge (TPACK) have the same importance (Koehler & Mishra, 2009). Erdem (2019) concludes that it has inspired teachers, teacher educators, and educational technologists to reevaluate their knowledge and use of technology in the classroom. In this way, TPACK can be considered effective usage of the technology in the teaching-learning process and teachers' enrichment of their pedagogical content knowledge with technology. It embodies effective integration of educational technologies with Pedagogical Content Knowledge in classes as supported by Valtonen et al.(2017).

However, while TPACK is potentially useful, especially when conceptualizing how the affordances of technology might be leveraged to improve teaching and learning, it requires additional examination to understand if technology, content, and pedagogy meld together to form the unique domains described by the framework. Theorists have

attempted to define and measure TPACK, but the explanations of its associated constructs that have been provided are not clear enough for researchers to agree on what is and is not an example of each construct. Supporting this idea, Valtonen et al. (2017)and Kozikoğlu and Babacan (2019) point out the boundaries between constructs are still quite fuzzy, thus making it difficult to categorize borderline cases.

e. The English Teacher Competency Framework (ETCF)

The (ETCF) for pre-service EFL teacher education programs is based on international language teacher standards documents consisting of the ACTFL Program Standards for the Preparation of Foreign Language Teachers (ACTFL, 2006) and the European Portfolio of Student Teachers of Languages (Newby et al., 2007). The framework is categorized into interrelated domains: attitudes, values, knowledge of subject, knowledge of learners, learning from practice and context.

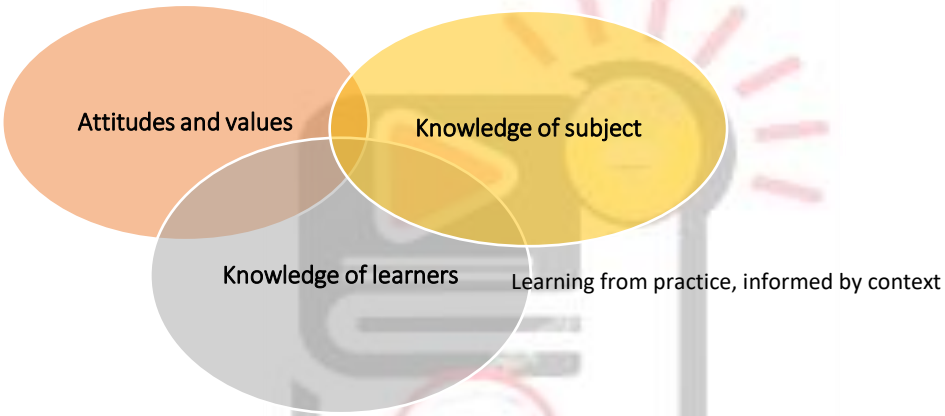


Figure (4) The ETCF framework (Source: Tabieh, Abuzagha and Al Ghou, 2021).

This framework prioritizes the affective aspects such as attitudes and values as well as knowledge of both the language and the learners. The intersection displayed in the figure reveals that the EFL teachers' proficiency is the real outcome of these constituents as a whole combined with learning from practice and context. This means that knowledge comes in parallel with practice and interaction with learners.

Critical review of the 21st century skills frameworks:

Within the examined literature, there is a general agreement among researchers on the need for new forms of learning to tackle global challenges. However, there is no single approach to the definition of '21st century skills', or models for framing these skills

within the context of teaching. Some educators state that existing frameworks analysing 21st century skills frequently refer to different skill sets and skill types, making comparison difficult. In addition, they are based on the premise that the 21st century requires a set of student educational outcomes including acquisition of robust core academic content, higher-order thinking skills, and learning dispositions (Seliem, Badawy & Abdel Fattah, 2019). This pedagogy involves creating, working with others, analyzing, and presenting and sharing both the learning experience and the learned knowledge or wisdom, including peers and mentors as well as teachers (Care, 2018). The classification or grouping has been undertaken to encourage and promote pedagogies that facilitate deeper learning through both traditional instruction as well as active learning, project-based learning, problem-based learning, and others (Çınar, 2021).

The factors that necessitate synthesis of the 21st century skills frameworks have been so related to EFL instruction. According to the Statista report (2024), there were around 1.5 billion people worldwide who spoke English either natively or as a second language. This increase makes many educational systems prepare their citizens with the aim of keeping pace with the changes and competitiveness happening in this globalized world. Therefore, educationalists have been concerned with formulating such frameworks. With this regard, educators and educational planners have been innovating various methods of teaching and integrating English language into their systems of education. In addition, the traditional 3Rs (reading, writing and arithmetic) were replaced with the frame entitled the other 3Rs discussed above to be in accordance with the new expectations of the 21st century language learner as supported by Bolat (2022).

Though these frameworks have some points in common, there are significant differences in the ways in which these skills are described and clustered. Some seek to define student behaviors. For example, an aspect of creativity might include “openness and responsiveness to new ideas”. Other frameworks refer extensively to the skill as the ability to “develop innovative and creative ideas”. A third category highlights specific knowledge. Creativity might be “knowledge of a wide range of idea creation techniques”. Some frameworks cover two or more of these categories; few comprehensively cover all three.

The frameworks reveal very different ways of conceptualising human characteristics and the human condition. For example, some frameworks as indicated by Zainil, Kenedi, Rahmatina, Indrawati and

Handrianto (2023) take a very high-level perspective, echoing generic human learning targets – to know, to do, to be, and to live together. Others such as Partnerships 21 comprehend both the high-level concepts as well as specific competencies. The ATC21S framework follows this model but explicitly acknowledges competencies beyond skills, identifying knowledge, and the cluster set of attitudes, values and ethics. This perspective clearly taps cognitive and social skills as well as morals, ethics, and attitudes.

The frameworks outlining 21st century skills describe overlapping competencies that are classified in many different ways. Moreover, these competencies comprise a complex set of sub-skills that are not easily disaggregated. For some frameworks, creativity and curiosity are separate skills whereas the literature identifies curiosity to be an integral component of creativity. These differences and overlaps have led to ambiguity in understanding and articulating the exact nature of these skills and competencies. This in turn, has created barriers for debate, discussion, and the development of effective teaching, learning and measurement methods.

Some frameworks gained a wide agreement. For example, Robinson and Kay (2010) point out that the list of ten, referring to the KSAVE, is sufficiently broad and comprehensive to accommodate all approaches. However, the model does not resolve the issue of subject-embedded knowledge, skills and attitudes versus their generalizability across domains (Çınar, 2021). Giving more support, Joynes et al. (2019) propose that the most appropriate model to adopt is the ATC21S model, because it streams a diverse range of skills into a manageable set of practically demonstrable capabilities, thereby presenting an outputs-orientated model. Moreover, it takes into full account both 'professional' and 'personal' skills and competencies. This enables it to work towards fuller integration between those work-orientated 21st century skills.

In reviewing the above-mentioned frameworks, it has become clear that all examined frameworks highlight the intersection between ICT and these skills. For ATC21S framework, 'ICT skills' are a defined and stand-alone set of skills, rather than as a cross-cutting and fully integrated requirement of 21st century skills. In both cases, skills related to new technologies are present in almost all frameworks. However, Erdem (2019) tries to correct some of the misunderstandings about 21st century skills, supposing that these skills are not all limited to technology. Technology is just a part of these skills. In Bedir's

(2019) study, results demonstrated that pre-service teachers superficially perceived 21st century learning as the integration of technology into classrooms teaching.

Although the aim of these models was to clarify and identify these skills, some of them have been too complicated. For example, the intersection in the TPACK model creates a challenge in implementation and assessment. Consequently, opponents of the 21st century skills movement think that it is too hard to measure these skills (Silva, 2009) and that those skills are merely attempts to please public opinion. Moreover, the 21st century skills movement is sometimes criticized for ignoring content knowledge. Opponents of the 21st century skills movement argue that these skills are serious threats to the teaching of core content, although some frameworks, such as P21 pay special attention to knowledge (Erdem, 2019). The 21st century skills movement appears to believe that education should be rooted in skills-driven learning and hands-on experiences. In this context, Shahin and Han (2020) maintain that skills and knowledge are not separable and the intended outcomes can be reached when content and skills are delivered effectively.

Some researchers attempted to create a sort of balance among the competencies. For example, Lima, Prasetyo and Muda (2019) state that these competencies are at least classified into three main domains. Those are 1) cognitive domain, involving thinking and other related abilities such as, reasoning, critical thinking, problem solving, and memory, 2) interpersonal domain, the ability to communicate with others through collaboration, coordination, teamwork and leadership, and 3) intrapersonal domain, involving feelings, emotions, self-monitoring, self-reinforcement and other psychological aspects. Whereas cognitive domain has been traditionally identified as a single key indicator of success, the other two domains are seen to be equally important much more than before.

To conclude, there is still a great deal of debate about 21st century skills- from what skills specifically constitute 21st century skills to what skills are most important. As a result to lack of clear consensus, the concept tends to be interpreted and applied in different ways which can lead to ambiguity, confusion, and inconsistency. The frameworks have been attempts to categorize the skills and call attention of practitioners to the importance of these skills. However, more research is still needed to reach the hopeful consensus about which skills are needed and how to effectively integrate them into language teaching. In short, although the frameworks vary in the

divisions and the contextual circumstances, they originated from the same driving forces and anticipate similar learning outcomes. In conclusion. The following table illustrates the six 21st century skills, the focus of the study. Selection of the skills depends on the assumption that, in addition to the 4Cs, self-regulated learning and digital literacy have become essential skills especially due to the increasingly changing world.

Table (2) The 21st century skills in the study (Adapted from Hixson et al., 2012).

Skill	Description
Critical thinking	Being able to analyze complex problems, investigate questions for which there are no clear-cut answers, evaluate different points of view or sources of information, and draw sound conclusions grounded on evidence and reasoning.
Collaboration	Being able to work together to solve problems or answer questions, to work effectively and respectfully in teams to accomplish a common goal and to assume shared responsibility for completing a task.
Communication	Organizing one's thoughts, data and findings and effectively sharing them verbally and in writing through various channels
Creativity and innovation	Being able to generate and refine solutions to complex problems or tasks based on synthesis, analysis and then combine or present what learners have learned in new and original ways.
Self-direction	Taking responsibility for learning, evaluating one's own work, and responding to feedback.
Digital Literacy	Using information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills.

The 21st century skills and EFL instruction:

Acquiring proficiency in the English language is imperative for the current generation, enabling them to adapt to global communication, literature, media, and work in both the present and future. Teaching the 21st century skills in combination with language is what all educational institutions should strive for as indicated by Marzulina et al. (2021). Idrizi (2023) argues that standard skills (e.g. reading or writing) are not sufficient for today's world. Language learner should also become good critical thinkers, skillful communicators, creative individuals, and good collaborators. The present study focused on the 4Cs as they represent the core of the genuine purpose of language teaching. Digital literacy was included because technology is a main driving force to change. Finally, self-directed learning was included because learning to learn is a crucial factor that language learners in particular need.

Communication:

Language is mainly a means of communication. Chehimi and Alameddine (2022) emphasize the importance of students' ability to express their thoughts and ideas successfully in various contexts, listen attentively to understand perspectives, employ multimedia and technological tools, and communicate. This implies that these skills play a pivotal role in the English language learning process. This skill includes the ability to express thoughts clearly and persuasively both orally and in writing, articulate opinions, communicate coherent instructions and motivate others through speech.

English as a Lingua Franca (ELF) has become the most widely used foreign language all over the world. Therefore, communication skills and techniques have occupied the largest space in EFL teaching and learning to provide people from various sociocultural and ethnic backgrounds with opportunities to increase the use of English in their daily communications effectively and efficiently. Consequently, in language teaching, it is important to have communicative competence in which interlocutors use appropriate language in a given situation (Makhmudov, 2020). Moreover, communication skills are highly valued due to the emerging technologies and the large proportion of messages that are mediated by digital devices. In addition, globalization and the emergence of the concept of intercultural communication have made it imperative to update our understanding of the word communication. Bolat (2022) confirms that using a language is not only a mental reality, but also a social reality. The process becomes wider than transmitting information from one person to another to include mutual understanding. Therefore, teaching a foreign language should focus on both the linguistic and cultural elements of the language.

The integration between the four skills and language learning is evident. Within the context of core knowledge instruction, students need to learn skills like critical thinking, problem solving, communication and collaboration. Furthermore, teaching communication is at the heart of English language teaching. To develop communication, collaborative and thinking provoking activities such as interactive discussions, role-playing, oral presentations, group work, pair work, games, and class circles should be provided.

Collaboration:

Bialik and Fadel (2015) state that collaboration is the coming together of diverse people to achieve a common goal facilitated by effective communication. Barfield (2016) argues that collaboration includes decisions taken jointly to achieve a goal that the individual achieves on her own, and the joint distribution of responsibilities and labor. This means that it is a coordinated, synchronous activity that is the result of a continued attempt to construct and maintain a shared conception of a problem. Some other researchers give more importance to how people interact with each other in the team rather than achieving a common goal or negotiating on a shared problem. In line with this, collaboration can be viewed as a process of interaction between at least two equal parties willingly and decision-making while they work on a specific issue (Paschal & Gougou, 2022).

English Language learning and collaboration are closely related. First, collaboration helps learners in solving problems, boosting democracy, increasing one's emotional development, and contributing to individuals' creativity and critical thinking skills (Bialik & Fadel, 2015). This positively contributes to advancing learners' language competencies both directly and indirectly. To illustrate, collaborative assignments constitute authentic opportunities for real life spoken and written interactions. Moreover, it indirectly enhances advanced fluency skills of negotiation of meaning, critical verbal communication, and reaching a consensus from a point of disagreement. In addition, the advent of ICT enables people transfer information and collaborate across the world using English as a common language. Therefore, teaching English has gained more recognition than ever. This results in a special mutual relationship between promoting collaborative skills within educational settings and teaching EFL on a global scale.

Theoretically, collaboration skills are an integral part of English language teaching, along with constructivism and social learning theory. For decades, Vygotsky's social constructivism and Bandura's social learning theory have influenced instructional and learning practices in general, and language teaching and learning classes in particular (Bandura ,1971 & Vygotsky, 1978). Collaboration is the hard core and final outcome of both theories. This confirms the mutual relationship between collaboration and language teaching and learning.

Consequently, Joynes et al. (2019) and Ghand (2022) emphasize the importance of students' working together to foster the ability to express their thoughts and ideas successfully, listen attentively to

understand perspectives, employ multimedia and technological tools, and communicate in various contexts. This clarifies the link between collaboration, language and other 21st century skills. Moreover, language creates a state of interconnection between communication and collaboration skills (Ghand, 2020). Therefore, helping learners develop their social skills and their communication skills must be done in tandem in the language classroom. Similar to all other skills, collaboration skills cannot be acquired without explicit teaching. It is a notable fact that dividing students merely into groups does not mean collaboration; hence, it is advised that collaboration skills should be employed as an end rather than a tool for a course content. Moreover, assigning roles and forming heterogeneous groups are recommended for optimal collaborative experience (Babu, Uzzaman & Khanum, 2013).

Critical thinking (CT):

The ability to anticipate and take proactive action represents crucial skills for the 21st century. Critical thinking skills not only offer advantages in language learning but also enhance individuals' capacity to reason effectively (deductively or inductively), make judgements, access, analyse, synthesise and evaluate information from multiple perspectives while foreseeing potential challenges (Triling & Fadel, 2009). In spite of its importance in many areas of life, in the literature, there is no one-size-fits all definition for CT. Nevertheless, there is a commonality about accepting CT as a metacognitive process by associating it with human cognitive abilities (Saleh, 2019).

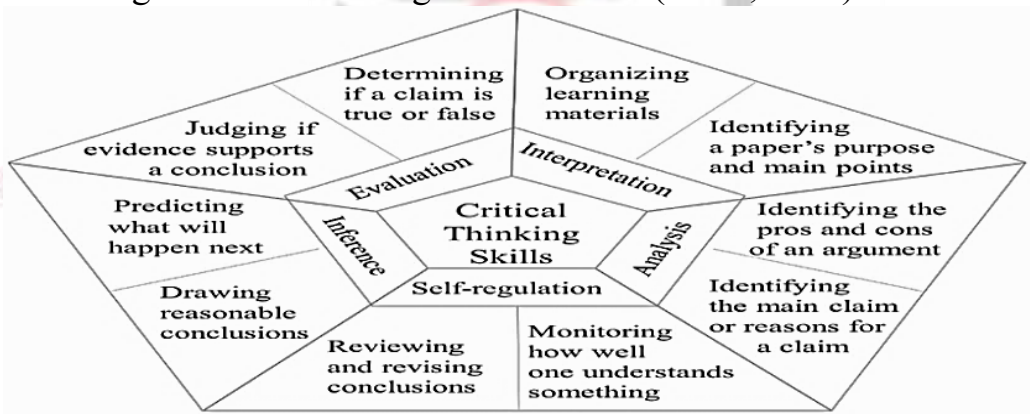


Figure (5) Critical Thinking Skills (Source: Ginzburg & Barak, 2023).

Figure (5) above illustrates the sub skills included in CT and shows how this main skill can make the language learner a mindful learner. For instance, Facione (2013) points out that without

interpretation, analysis, evaluation, inference, explanation and self-regulation, language learning turns to the placement of words in a particular syntax without clear logical connections. According to the P21, CT is interwoven with problem solving as it entails approaching problems in a new way, linking learning across subjects or fields while foreseeing potential challenges (Triling & Fadel, 2009). It is contended that CT and problem solving are the core skills of 21st century since they make a distinction between learners who are prepared for progressively complex life and work surroundings in the 21st century and those who are not. Proactive critical thinking is immensely beneficial in problem-solving, and innovative solution development.

In addition, CT draws on other skills such as communication and information literacy. When using technological tools for learning and communicating with others, language learners need to think and reason (Bolat, 2022). Therefore, Seliem, et al.(2019) believe that teachers of EFL should design appropriate activities focusing on developing persuasive arguments supported by evidence, utilizing idea-generation techniques like brainstorming or mind mapping, summarizing information, and generating interpretations of texts. Relatedly, CT and self- directedness are also related because the former stimulates autonomous learning and self- confidence.

Creativity:

A more profound understanding of learning and the provision of students with various skills and knowledge make the need for creative thinking more demanded than ever. This skill can be described as the capacity to generate new ideas and solutions, pose unfamiliar questions and arrive at unexpected answers (Masadeh, 2021). It necessitates the exploration of innovative approaches to accomplish tasks. In addition, it represents the ability to imagine or invent something original. Using such an ability, learners can create ideas, find solutions, search thoughts, and create pieces of work by using changes, distinct combinations, and replications of existing ideas (Hana & Hacène, 2017).Throughout all the definitions provided by different studies, it can be argued that creativity is associated with several attributes of which EFL teachers and learners should be aware. These attributes involve imagination, divergence, intellectuality, avoidance of conventionality, originality, and flexibility. Therefore, more emphasis needs to be placed on cultivating creativity in school age children.

With regard to creativity and language learning, Chehimi and Alameddine (2022) state that the language learning process inherently involves imagination and creativity. For instance, when speaking in a foreign language, speakers use language creatively by reformulating sentences, changing structures or expressing content differently. Because of its central role in the 21st century, creativity has started to attract more attention in ELT. In response, the framework of Cambridge life competencies proposed in 2018 put forth some characteristics that language learners must have such as participating in creative activities, creating new content from their own ideas or other work, and exploring and voicing their personal identities and feelings through creative activities (Kurt & Önalan, 2018).

Experimentally, adopting creativity in language classes has some benefits such as increased motivation and academic success (Liao et al., 2018). In addition, in lessons where creativity is adopted, students feel more comfortable expressing their ideas because creativity provides a non-threatening environment. Creativity necessitates the exploration of innovative approaches to accomplish tasks. This requires creative teaching where the language teacher fosters creativity through facilitative pedagogical practices such as designing novel learning tasks, planning for the learning experience that is flexible and self-directed, setting a mutual respect atmosphere, open dialogue, and collaborative activities (Craft & Jeffrey, 2013). Such practices encourage students to think independently, devise their own solutions to problems or questions, and explore new ideas, aligning with the needs of students.

However, some potential threats like tensions in meeting the subject matter requirements, designing learning tasks to foster student creativity, the fear of curricular chaos, constant monitoring of learning, emphasis on high-stakes examination, and the inconsistent, vaguely shaped definition of creativity can impede teaching the skill. In short, the skills are so related to and urgently needed in language teaching. The integration of 21st century skills with creativity at its core, however, has turned into a reality in language teaching classes all over the world. How those skills will be integrated and the consequences of their teaching is a matter of a vast area of experimentation in the next few years.

Self-directed learning (SDL):

The rising interest of personal well-being, independence, and interdependence research in the field of educational psychology in the last three decades has attracted 21st century skills researchers' attention to the need to incorporate the results of that large body of research into their proposed frameworks. One integral outcome was self-directed learning. The most cited and well-known definition belongs to Knowles (1975), who outlined five dimensions of self-directed learning. According to him, self-directed learning is a process in which individuals take initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes. According to the SDL model proposed by Brockett and Hiemstra (1991), the teaching process and learner characteristics affect SDL to help students take primary responsibility for planning, implementing and evaluating the learning process, as long as the teacher works on facilitating the process.

Self-direction is especially important in language learning because so much of language learning takes place outside the classroom setting, and the way students manage this aspect of learning is crucial to their advancement as autonomous language learners. Previous research in that field proclaimed four dimensions of self-directed learning: self-regulation, autonomy, personal responsibility and motivation. All these dimensions are essential in language learning and can be seen as a tool to make students more successful. In this context, Ghand (2022) points out that adopting self-direction skills in language classes benefit language proficiency and students' attitudes.

Table (1) Self-directed learning continuum (Source: Tai, 2023)

Stages of SD	Student	Teacher	Examples
5 Beyond	Self-determined	Mentor/ Partner	Action research Self-developed project
4 High	Self-directed	Consultant/ Delegator	Open-ended performance-, problem-, or project-based task. Internship, senior project, term project dissertation
3 Intermediate	Involved	Facilitator	Teacher-approved group project Seminar with teacher as participant (e.g. Socratic seminar)
2 Moderate	Interested	Motivator/ Guide	Teacher-led discussion Lecture followed by guided discussion Guided practice in applying learning strategies (e.g. goal-setting) Skill- building exercises
1 Low	Dependent	Authority/ Coach	Teacher-led drill Informational lecture Coaching with immediate feedback

Table (1) above provides a map for language teachers to reveal how to gradually transform learners from dependent recipients into autonomous self-determined investigators. It clearly shows that teacher authoritarian powers should retreat to leave more space for learners to take full responsibility of their learning by time. This complies with recent amendments in EFL teaching approaches which stress the need to help learners be autonomous communicators. Examples include community language learning (CLL), task-based language instruction(TBLI), project-based learning (PBL), content and language integrated learning (CLIL), and flipped language classroom, to name a few. Planners of those strategies argue for applying the tenets of self-directed leaning, self-regulation techniques, and autonomous language learning in EFL classes (Oxford,2017).

Digital literacy:

The demand for the study of English has been increasing in the twenty-first century due to globalization and the growing prevalence of technology. Therefore, this skill has made itself so related to language learning as stated by Tai (2023). In this century, there are some expectations from nonnative speakers of English who increasingly outnumber the native speakers. They are expected to utilize suitable information and communication technologies

selectively and critically and attend to ethical considerations required in the participatory technological culture. Relatedly, Chehimi and Alameddine (2022) argue that digital literacy enables the language teacher to be knowledgeable of a variety of ELT approaches, methods, and techniques. Nowadays, digital revolution facilitates access to quality educational resources, structured learning in accordance with multimedia and constructivist learning approaches. In the same vein, Fandiño Parra (2013) and Ataberk and Mirici (2022) posit that various options are available in the English classes especially when information and knowledge have become ubiquitous and easily accessible in the 21st century. Multiple tools permit access to comprehensive content with on-demand availability and with no requirement for additional resource provision

At the heart of most frameworks of 21st century skills lies digital literacy. It is the new language of the new millennium. It has become a constant demand for most career opportunities of today's global market. At the same time, most literature related to digital literacy is written in English. Programming languages are developed in English. Most webinars, training courses, and every-day transactions in the digitized world of information and communication technologies take place in English. As a result, the development of digital literacy has been interrelated to EFL instruction and learning in many ways. Therefore, Chehimi and Alameddine (2022) stressed the significance of training EFL teachers on how to integrate developing digital literacy in their language classes.

To conclude, 21st century skills have taken a prominent status in education in general, and in language teaching in particular in the first quarter of this century. As a result, teachers need to be well acquainted with those skills. More importantly, it is expected that they have formulated a comprehensive conceptualization of those skills and an overview of how to integrate them in their everyday language classes. Saleh (2019) argues that EFL teachers in particular have an obligation to act in response to the needs of their learners to prepare them to become effective 21st century global citizen. EFL teachers' perceptions also have their role in the process of developing the target skills. Such perceptions seem to direct the teachers' endeavor in the teaching process, highlight the goals and shape practices.

3. EFL teachers' perceptions and practices related to 21st century skills:

Perception is defined as the recognition and understanding of events, objects and stimuli (Richards & Schmidt, 2010). Similarly, Schacter (2011) defined it as "the organization, identification, and interpretation of sensory information in order to represent and understand the presented information or environment'. Bernstein (2010) clarified that the reception and representation of sensory information in that context is not a passive process. Rather, it is an active, interactive, and sometimes proactive process shaped by the recipient's learning, memory, expectation, and attention.. This supports the definition presented by Mussawy, Rossman and Haqiqat (2021) as the way or method to see or observe various phenomena, condition, or situation in surroundings. In this context, perceptions generally refer to teachers' thinking underlying their practices as well as their views as they express them.

As for forms of perceptions, Bedir (2019) differentiates between core perceptions and peripheral perceptions. The former type is more effective in shaping teachers' instructional approaches while the latter paves the way to the conflict between what teachers claim they do and what they actually do in the classroom. Although perceptions can be changeable, core perceptions are more stable than peripheral ones. Moreover, perception is affected by internal (need, suitability, knowledge and experiences) and external factors (stimuli received from environment). As a result, one's perceptions may be different with that of others due to these differences. Yeni (2018) mentions some basic principles of perceptions. For example, perception is relative not absolute, it is selective, it is influenced by hope and readiness, and it frequently drives behavior. This means that perceptions and practice in the field of teaching are supposed to be somehow related. Utami (2016) and (Zahran, 2023) noted that what teachers do in the classroom is said to be governed by how they perceive things and their perceptions often serve as a filter through which instructional judgments and decision are made. Teachers' practices can be developed if teachers become aware of the intended skills and how the increasingly changing circumstances require teachers with different skills and competences. Sometimes some challenges and hindrances create an unwanted gap between the two in the teaching context.

Several studies have explored attitudes, awareness levels, preferences and perceptions towards the development of 21st century skills in EFL teaching; however the findings come contradictory. For example, it was revealed that the majority of teachers have positive attitudes towards the development of 21st century skills (Tsourapa, 2018; Shahin & Han, 2020), strong preferences for 21st-century skills practices such as collaboration, critical thinking, and the use of technology in the EFL classroom (Siregar, Fauziati & Marmanto, 2020; Irfiana, Purnawarman & Sukyad, 2021), a high degree of readiness to use technological tools for teaching language skills (Seraj, Habil & Bharu, 2021 & Tabieh et al., 2021) and awareness of the essential role played by 21st century skills for EFL students due to the universality of English language and due to the needs of the knowledge-based economy (Albahlal, 2019; Kelimeler, 2019 & Trejo & Galindo, 2022). Some researchers were more interested in the EFL students' perspectives of these skills. For instance, the purpose of Tai's (2023) study was to investigate how 8th-grade students utilized the 21st-century learning skills when learning English. The study's findings revealed that the majority of EFL students recognized the significance of the 4Cs in their English learning. Additionally, the study discovered that the implementation of the 4Cs was prevalent in EFL classes.

On the other hand, some studies yielded findings that require an in-depth view. Accroding to Fandiño (2013), little has been done in order to infuse the EFL class with these skills. This indicates that there is a gap between what teachers believe and how they behave. In their study aiming to investigate teachers' perception on integrating ICT in teaching-learning process, Gebremedhin and Fenta (2015) found that that majority of the participating teachers at Adwa College were unable to use ICT in their classes. This indicates that most participants cannot integrate ICT in the course they teach mainly due to shortage of resources. Nevertheless, the participants have strong positive perception to use ICT in the teaching-learning process. Pearson correlation shows that there is a significant relationship between teachers' perception towards ICT integration and the factors that encourage ICT usage. This indicates that the teachers' perception towards ICT integration into teaching-learning process increases if ICT usage is encouraged and vice versa.

Focusing on the teachers' awareness and perceptions toward the 4Cs in particular, Bedir (2019) demonstrated that pre-service teachers were moderately aware of and involved in these skills although they had positive perceptions towards them. Surprisingly, pre-service teachers also held negative beliefs about emphasis of the 4Cs in the national curriculum and assessment, but positive beliefs about professional development related to these skills. In a recent study, Bolat (2022) aimed to investigate to what extent secondary school English language teachers used 21st century skills. The results revealed that teachers generally integrate 21st century skills approximately one to three times a month into their teaching practices. It was found that teachers with less years of experience apply these skills more than those with more years of experience. This means that developing the target skills is sometimes bound to contextual circumstances and a problem related to teaching practices still exists.

The TPACK model was the focus of some researchers but with various perspectives. For instance, the study conducted by Kozikoğlu and Babacan (2019) aimed to investigate the relationship between Turkish EFL teachers' TPACK skills and attitudes towards technology. It was found that there was a low, positive and significant relationship between teachers' TPACK skills and attitudes towards technology. In addition, TPACK skills of the teachers did not differ significantly according to the professional experience. In the same context, Kharboush's (2021) study aimed to use the TPACK framework to assess EFL pre-service versus in-service teachers' perception of technology integration in EFL instruction and promoting its development among pre-service ones. Quantitative data analysis indicated significant differences between the two groups; as EFL pre-service teachers scored higher in TK and marginally better in TCK domain, meanwhile, EFL in-service teachers significantly surpassed in their PK, CK, TPK and PCK. The two studies indicate that programs of professional development should be revised and re-planned for better results related to the 21st century skills. Relatedly, Alamr and Abad Awjah (2023) aimed to explore the Saudi EFL teachers' views on using TPACK Model to improve students' vocabulary learning. Moreover, it sought to obtain in-depth data regarding EFL teachers' experiences using the TPACK model in their classrooms. Results showed that (78.3%) of EFL teachers had introduced TPACK previously into their teaching, and (63.5%) highly valued the importance of using the model in teaching English. Participants

perceived the value of using TPACK-based instruction for EFL learning and demonstrated significant agreement on fourteen items but they were unsure in six statements if the model might support EFL learners. The percentages mean that more research is needed to scrutinize perceptions and clarify their relationships with teaching EFL.

In conclusion, reviewing literature in the area of the 21st century skills in the EFL classroom shows that several studies found that EFL teachers think positively of these skills, other studies revealed that integrating them in teaching was not satisfactory. There may be a group of factors hindering teachers from developing the target skills properly.

Challenges of integrating 21st century skills in language teaching:

The shift towards developing these skills comes with several constraints creating a gap between importance of the skills and problematic practices. The question raised here is why the implementation of 21st century skills is still problematic in spit of the positive attitudes expressed towards them by teachers or students in most of the reviewed studies. Some studies have focused on the challenges of infusing the skills in language teaching to find out that these challenges are multifaceted. The main challenges were shortage of resources, limited knowledge about the skills (Gebremedhin & Fenta ,2015; Siregar, Fauziati & Marmanto, 2020; Trejo & Galindo, 2022), lack of time, lack of technological equipment (Tsourapa, 2018), class size, multilingualism, insufficient opportunities of practices (Erdem, 2019; Paschal & Gougou, 2022), lack of qualified pre and in-service training, inadequate curriculum, lack of infrastructure and materials, and unsupportive attitudes of administrators (Bolat, 2022). According to Irfiana, Purnawarman and Sukyad (2021), the challenges can be clustered into three groups: challenges related to curriculum such as not including all target skills, challenges associated with students such as lack of motivation, and external challenge such as shortage of resources.

Furthermore, the teachers' limited knowledge and the approach(es) they adopt in language teaching are still obstacles of integrating these skills. Experimentally, the purpose of Ghand's (2022) study was to examine the teacher's perceptions, practices, and attitudes towards approaches to learning. The findings showed that teachers usually prefer surface approaches over deep approaches to learning. They focus on students completing activities in the shortest possible time and memorising facts. Much emphasis is placed on students'

remembering the materials taught in classrooms and replicating them when probed in exams. Such an environment gives no room for the 21st century skills to be fostered. That is why the use of technology as one of the target skills is not favored by EFL teachers. Similarly, it was found in the study conducted by Saleh and Meccawy (2022) that the challenges EFL teachers face while using technology are students' participation, motivation, tendency to cheat during exams, and not taking responsibility for their learning.

Two contradictory results were found by the study of Ataberk and Mirici (2022). This study aimed to investigate to what extent the 21st century skills were included in English language teacher training programs and to compare the perspectives of students and academics of the related programs. The ELT department programs of randomly selected Faculties of Education of four different universities were examined. First, the results have revealed that the curriculum provided by the Council of Higher Education are applied in all the participating ELT departments, and it aims to develop the 21st century skills in prospective EFL teachers at some points. However, the course contents of the curricula in those departments are limited to some of the skills which may break the integrity of the 21st century skills in professional life reflections. The participant academics and students believe that some of the components of the 21st century skills are included in their course contents but not completely. Second, the students did not feel confident about handling the 21st century skills in a real-life implementation. In a similar study, Alzahrani and Nor (2022) conducted a study seeking to explore how professional development programs influence EFL teachers' teaching practices in activating 21st century skills, and therefore their students' acquisition of these skills. It also examined the correlation between EFL teachers' activation of 21st century skills and their students' acquisition of these skills. The results revealed that the two dimensions of 21st century skills that got the highest level of activation were collaboration and communication. Finally, the results showed that EFL teachers' activation of 21st century skills had no significant direct correlation with students' acquisition of these skills. These findings could provide insights on the area of professional development programs (PDPs) that need to be researched more.

The complex nature of skills is another challenge. In this regard, Tabieh et al. (2021) point out that some skills, such as problem solving, might be seen as uni-dimensional in the sense that just one main type of contributing factor – cognitive skills –describes them,

although multiple processes contribute to them. Other skills are clearly multidimensional by virtue of drawing on qualitatively different skills. Collaborative problem solving is a case in point as it combines the two broad domains of social and cognitive skills. In turn, each of these is comprised of more finely delineated sub-skills such as responding, and organising information. Such skills might be referred to as complex skillsets or complex constructs which pose additional challenges for measurement due to the difficulty of identifying the degree to which each sub-skill might contribute unique variance. Also, the degree to which demonstration of one sub-skill might depend on reaching some hurdle level of competence in another.

In short, the misconceptions discussed before and the contextual challenges may lead to improper implementation of these skills. One way to overcome most of those challenges is to motivate decision makers to go a step toward providing supportive environment in a way that makes EFL teachers have highly positive perceptions and enthusiasm to develop these skills.

5. EFL classroom teaching for the integration of 21st century skills:

It is no longer the usual debate over standards and structures but instead a discussion about how language learners best learn in the 21st century, and how classrooms can become catalysts for vibrant engagement, not simply achievement as stated by Ekinci (2019) and Bolat (2022). While there is broad agreement that today's students need cross-disciplinary skills that seem to be different from what were perhaps taught to previous generations, the question of how best to support the development of such skills is posed frequently. In approaching the teaching of 21st century skills in the language classroom, some researchers give general outlines of how to develop the skills. For instance, Harshbarger (2016) proposes three crucial components for achieving success in the 21st century. The first component is the *curriculum*, which includes the skills based on real life problems. The second component is the provision of *explicit teaching*, where teachers require a comprehensive understanding of non-cognitive elements such as academic mindsets, behaviors, perseverance, social skills, and learning strategies, along with clear instructions on improving the target skills. The third component, *leadership*, involves school administrators or leaders supporting adaptable teaching and learning approaches. In this regard, Jaberian, Vista and Care (2018) state that the teacher should identify what demonstration of these competencies might look like and how to elicit or stimulate performance so that teachers know which aspects of those

competencies the individual is ready to learn. In delivering this, teachers need support from curriculum materials and other resources that provide them with the necessary frameworks for teaching. In the classroom where the skills are explicitly and systematically integrated, students need regular opportunities for practice within the school setting, including working across disciplines. In addition, clear guidelines for EFL assessment depending on collaborative, communicative tasks should be provided. The classroom environment as a whole needs to empower the learners to interact, share, and extend thinking.

The attempts of adapting language teaching to the needs of this century have led to the emergence of new constructs and methodologies such as multiliteracy, multimodality, integrated studies, problem-based and project-based learning. Makhmudov (2020:86) states that multi-literacy expands the traditional language-based notion of literacy–the ability to produce and interpret texts– to include a critical awareness of the relationships between texts, discourse conventions, and socio-cultural contexts. Such ability prepares language learners to participate in diverse discourse communities and fosters the critical engagement they need in this age.

Moreover, Chehimi and Alameddine (2022) point out that a successful language class must open up the space for the learner to experiment with 21st century skills through problem- based learning and project-based learning. The former is defined as an instructional approach that contextualises learning by presenting learners with products to develop. It enhances autonomy and gives the leaner the chance to work on their interpersonal and social skills, and as a result, their language skills develop. The latter is an instructional approach premised upon the assumption that learning takes place when the learner addresses real world problems. By the same token, it has both linguistic and affective benefits. Darling-Hammond et al. (2009) concur that problem-based learning surpasses traditional learning methods when it comes to helping the learner develop their critical thinking and communication abilities as well as developing the ability to apply knowledge to real-world situations. Moreover, independent research projects are designed to be flexible enough to function both within and beyond the curriculum.

As for the way of integrating the skills in the curriculum, researchers have various viewpoints. Suto and Eccles (2014) propose that they can be better taught as separate subjects in skills-centered courses. For example, over the past decade, critical thinking has

become a subject in its own right. It develops the ability to interpret, analyse and evaluate ideas and arguments and can support thinking skills in all subject areas. On the other hand, some other researchers recommend infusing the skills in multidisciplinary curriculum (Fragoulis, 2009). The integrated studies which draw on content from English, science and humanities are recommended to focus student attention on 21st century skills, particularly collaboration, problem-solving and critical thinking. In this setting, students are encouraged to interrogate information and focus on understanding problems that affect the community at large. Whether explicitly or implicitly included, the skills need qualified teachers for optimal development. A third perspective is that the skills can be nurtured successfully outside lessons as extra-curricular activities. Thus, students may extend and enrich previously learned academic skills through competitions (e.g. interscholastic debates) and by applying them to the real world simulations (e.g. writing in school publications). In the co/extracurricular setting, learners may also develop and practice interpersonal skills that are obviously considered as elements of success in the 21st century.

Paschal and Gougou (2022) use the term 21st century pedagogy as a wide concept allowing to describe the methods, techniques, practices and skills required for an effective teaching approach. Figure(6) below illustrates that it is a multi-dimensional process because it acknowledges the changing needs of learners, teachers and society.

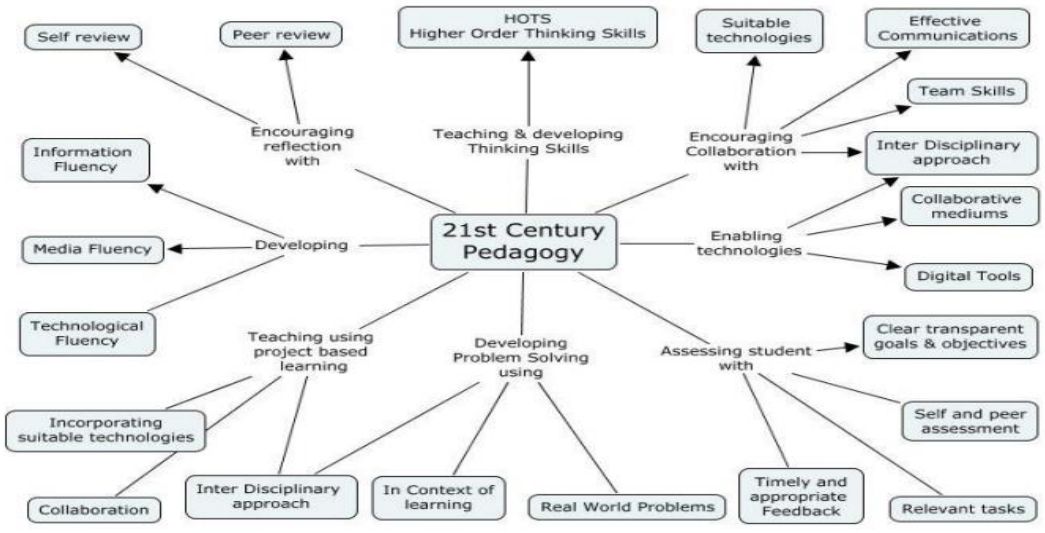


Figure (6) 21st century pedagogy framework (Source: Paschal & Gougou, 2022).

As shown in figure (6), the 21st century pedagogy includes so many items and requirements including different methods to the traditional ones. The transformation to the 21st century pedagogy in the English classroom substantiates collaborative and technology-based dynamics that deeply reshape the roles of the learner and teacher. Consequently, considering the above-mentioned dimensions can be considered a source of new challenges that the teacher should be ready for.

This means that various perspectives are presented in literature including merging the skills into subjects, allocating specific courses for developing them, using classroom activities, and depending on extracurricular activities. The shift toward pedagogy of the 21st century skills begins with qualified teachers who can select based on the learners' needs the most appropriate methodology. The whole system including curriculum, resources, feedback and environment should be directed toward these skills. However, assessment is another element affecting the process of developing the skills.

6. Assessment of the 21st Century Skills:

21st century skills may be more difficult to assess than factual knowledge. And here lies one of the challenges for assessment. Creativity, for example, is almost infinite, it defies precise definition (Jaberian, Vista & Care, 2018). Whilst it may be possible to assess the quality of creative products, the skill itself may not be readily assessable. Similarly, collaboration and initiative-taking are considered to be highly contextual capabilities; they therefore elude comparable quantification. Supporting the same idea, Tabieh et al. (2021) indicate that in comparison to the educational assessment of content-based knowledge, assessment of twenty-first century skills is in its infancy. To date, there has been little attention paid to construct validation of assessments in the classroom, or to predictive validity based on evidence of the generalizability of skills-based learning.

Demonstration of skills or competencies is through behaviors which we hypothesize are accounted for by latent traits. While performance assessments can always be an alternative to high-stakes tests, it is considered a subjective and time-consuming option. The challenge of assessment may be attributed to lack of understanding the multidimensional nature of the target skills and how to develop them as indicated by Lima, Prasetyo and Muda (2019).

In the Egyptian EFL context, for instance, performance-based assessment is often used to assess the four language skills. This kind of assessment can easily measure learners' use of structures, appropriate vocabulary items and functions in a performance task. Although it can provide information on what learners know and what they are able to do with that knowledge, it is still not clear if this type of assessment is enough to measure 21st century skills. That is why assessment techniques for 21st-century skills have developed to go beyond conventional tests and examinations. Performance-based examinations, in which students exhibit their talents in actual activities or situations, are an innovative technique. Table (3) below presents some alternative forms of assessment that may be useful when assessing these skills.

Table (3) Some forms of assessment appropriate to 21st century skills (Source: Authentic).

Form of assessment	Description
Journal Assessment	**This is a learner's own ongoing record of expressions, experiences and reflections on a given topic.**
Portfolio Assessment	**This is a "purposeful" collection of work that helps to define the learner's efforts and achievements in a specified area throughout the course. With the use of portfolios, students may gather examples of their work to illustrate how they have improved over time.**
Project Assessment	**This assessment measures the learner's ability in "real life" tasks and situations. This assessment might be structured to require students to use their knowledge in real-world situations, come up with original ideas, solve creative problems, or face open-ended design tasks.**
Self-Assessment	**Learners would be allowed to examine and evaluate their own skill development. It encourages metacognition and learning ownership by giving students freedom to consider their advantages and opportunities for growth.**
Formative assessment	**This form of assessment includes open-ended questions and other thought-provoking inquiries assess pupils' progress in developing the target skills.**
Peer assessments	**It is a form of assessment where students offer comments on the contributions and effectiveness of their colleagues in a group context. It enables students to evaluate one another's work, encouraging teamwork, communication, and the capacity for constructive criticism.**
Observations	**Observations made during group projects or conversations give information about students' abilities to effectively interact, communicate, and contribute.**
Simulations and digital platforms	**These forms offer real-time communication, document sharing, and monitoring of individual contributions. The digital collaboration tools and platforms can help to support and measure cooperation, making judgements in real-world circumstances, creativity through multimedia presentations, and communication skills.**

As shown on table (3), the assessment tools not only analyse the results but also provide insights into the process itself, such as ideation, divergent thinking, risk-taking, and the quality and uniqueness of ideas. The teacher is not the only source of assessment, peer- and self-evaluations can also be used to gain deeper viewpoints on the skills and develop collaborative and autonomous learning. Due to the dynamic nature of the skills, rubrics and criteria should be developed or explored. In these rubrics, a group of indicators describe the specific actions, knowledge, and attitudes related to each skill, as well as how they may be observed and measured. Through these indicators, rubrics can define multiple degrees of competency and criteria for each ability, offering explicit standards for evaluation. Using rubrics allows a more accurate and uniform assessment and a better understanding of 21st-century abilities and growth.

Overall, a mix of methodologies, including both traditional and digital approaches, gives a thorough evaluation of these skills. However traditional teaching has different aims and philosophy that should be altered to suit the recent view to language teaching. To conclude, the 21st century skills have become fundamental in all subject areas with special reference to EFL. teachers who should be ready for the new responsibilities to help language learners be competitive in this century. As stated in this review, students are currently required to be prepared for jobs and technologies that do not yet exist in order to solve problems that we do not even know as problems yet.

Context of the problem:

At the turn of the new millennium, a plethora of educational research theorized the urgent need for targeting training students on a new set of soft skills under the broad title of 21st century skills. Consequently, a host of models appeared in attempt to list those skills, categorize them, and identify logical relationships between them. As a result, several calls for integrating them in school curricula and daily class activities gained widespread acceptance.

On a practical level, studies of teachers' responses to those modifications varied between enthusiasm for integrating those skills in their instructional practices, to reserved acceptance, to complete negligence of those skills due to misconceptions of their significance or ignorance of how to implement them in school activities. Despite the wide agreement on the importance of the 21st century skills, findings of research related to the teachers' strands toward these skills vary radically. For example, a plethora of studies found that EFL

teachers think positively of these skills (Tsourapa, 2018; Muhamad & Seng, 2019; Kelimeler, 2019; Joynes et al., 2019; Irfiana, Purnawarman & Sukyad, 2021; Alshraideh, 2021; Seraj, Habil & Bharu, 2021; Trejo & Galindo, 2022 & Tai's, 2023). Though results of these studies indicate that EFL teachers generally admit the importance of developing the target skills in the language classroom, implementing these skills is still problematic. This refers to a state of discrepancy between what they believe in and how they teach. For example, literature shows that limited attention is paid to teaching the skills (Wilcox et al., 2017; Kusmarni, Winarti & Yulianti, 2019; Prasetyo, Suryono & Gupta, 2021; Ataberk & Mirici, 2022& Zainil, Kenedi, Rahmatina, Indrawati & Handrianto, 2023), improper implementation attributed to the teachers' lack of knowledge of these skills (Fandiٌo, 2013; Muhamad & Seng, 2019; Şahin & Han, 2020; Masadeh, 2021 & Ghand, 2022) and partial implementation of some skill (Trejo, 2022 & Alzahrani & Nor, 2022). Surprisingly, findings of a recent study conducted by Chehimi and Alameddine (2022) indicated that 40% of the teachers had not heard of the 21st-century skills. Furthermore, despite the efforts made by previous researchers, there is a paucity of studies exploring the EFL teachers' perceptions about the 21st century skills in the Egyptian context, how these perceptions are related to teaching practices and how they may differ in terms of some demographic factors. In short, because there is a consensus that EFL classes are not only designed for teaching the English language, their roles extend to preparing their learners to become 21st century global citizen. Therefore, the current research focused on 21st century skills in terms of the teachers' perceptions, practices and some demographic characteristics.

In Egypt, the situation is still ambiguous with scarce research on the perceptions of EFL teachers of those skills, or a review of their instructional practices to help EFL learners assimilate and accommodate those skills into their everyday academic and career practices (Seliem, Badawy & Abdel Fattah, 2019). The situation constitutes a threat after over a decade of the integration of those skills in Egyptian EFL classes with little formal or academic feedback on the reward of this decision from any of the benificinary parties, especially EFL teachers.

Statement of the Problem:

Despite the wide agreement about the importance of developing 21st century skills among EFL learners, perceptions and teaching practices of the EFL teachers need more exploration. Paucity of

research in the Egyptian context requires conducting more research. Consequently, this research has been conducted to explore the EFL teachers' perceptions of the 21st century skills at the secondary stage in Egypt, reveal how far they work for developing these skills, and find out the demographic effects on these perceptions especially with the series of educational reform and the wide use of technology .

Significance of the research

The purpose of the present study was to find out about the current perceptions and practices of EFL secondary stage teachers concerning the administration of 21st century skills in classrooms Thus, it is expected that teachers, teacher trainers, mentors, policy makers, researchers, teacher educators, and indirectly EFL learners can make use of its findings as illustrated below:

- EFL teachers will be more aware of the general perceptions and practices of integrating 21st century skills into school curricula. This responds to the general complaints of many teachers that those skills make no use to their students. They found those skills as a burden that has no relation to language teaching.
- Teacher trainers can make use of the results in developing more focused inservice training programs to EFL teachers to present general guidelines on how to perceive the target skills in language teaching and how to implement them in language classes.
- Mentors can benefit from the conclusions of the research for their suggestions for better practices of 21st century skills classes within EFL contexts. More importantly, the research reveals part of teachers' dispositions towards teaching 21st century skills in EFL classes. This is essential for better understanding of how to guide them for better teaching of those skills in the future.
- Policy makers and curriculum designers and developers should put the findings of this research into consideration in their plans for curriculum development or educational policy revisions in both the near and far future amendments.
- Researchers may find a gap-filler in the scheme of this research, the research targets an under-researched topic that needs more insightful investigation with the increased interest of the 21st century skills movement and the seemingly unplanned integration of them in EFL curricula.
- Teacher educators may find some interesting discussions for pre-service teachers to forecast how to implement teaching the target skills in language classes in the future.

- It is hoped that EFL learners may benefit from the expected improvement of their teachers' performance in 21st skills classes, especially when we find some teachers target focusing on presenting vocabulary and structures of the textbook language in those classes with purposeful neglect of the aims of developing 21st skills in EFL classes.

Aims of the study:

In a quest to make EFL teaching keep up with the 21st century skills, the current research has three aims: investigating the EFL teachers' perceptions of 21st century skills in the secondary stage, exploring teachers' practices integrating the skills, and finally showing whether the EFL teachers' perceptions concerning integrating 21st century skills differ significantly based on some demographics. These demographic characteristics include years of experience, gender and school type.

Research Questions:

To fulfill the purpose of the research, the following questions were raised:

1. What is the degree of importance of each skill as perceived by the EFL teachers?
2. How do EFL teachers perceive some 21st century skills in language teaching, namely, critical thinking, communication, collaboration, creativity and innovation, self- directedness and digital literacy?
3. How far do EFL teachers integrate the 21st century skills into their teaching practices?
4. Do EFL teachers' perceptions significantly differ according to certain demographic characteristics (years of experience, the school type, and gender)?

Research Design:

The current research followed a mixed-methods research design (Creswell, & Creswell, 2020). To illustrate, quantitative data were collected using a structured questionnaire. In addition, the data collection and analysis processes were sustained by qualitative analyses of reflective journals written by the participants of the study.

Procedures of the research:

Based upon a review of literature related to 21st century skills and careful scan of secondary stage EFL textbooks in Egypt, the target skills of the study were selected. A four-section questionnaire designed by the researcher was then used to measure volunteering participants' perceptions and practices of teaching the target skills. Simultaneously, ten of the participants volunteered to write down notes in reflective

journals to describe their experiences related to developing the target skills. The collected data were statistically analysed and discussed. Finally, based on that discussion, recommendations and suggestions for further research were concluded.

Setting and Participants:

This study was administered during the first semester of the 2023/2024 academic year. A total of (130) EFL teachers from public and private secondary schools in Beheira Governate, Egypt volunteered to take part in the research. These participants were selected through the purposive sampling strategy based on predefined criteria. They graduated from different Egyptian universities with at least a bachelor's degree in English Language Arts and Education. Their age span and teaching experience ranged from 25 to 50 and from 5 to 20 years respectively. The participants signed a form indicating their consent to take part in the research voluntarily before the commencement of the research. For the qualitative part, (10) voluntary EFL teachers were chosen purposively from different school types and teaching experiences to write in their reflective journals.

Table (4) Demographic characteristics of the participants

Type of school	N.	%	Gender		Years of experience		
			Male	Female	5-9 Years	10-14 Years	15+ Years
Private	67	51.5%	35	32	22	22	23
Public	63	48.5%	30	33	19	21	23
Total	130	100%	65 50%	65 50%	41 ٪٣١.٥	43 ٪٣٣.١	46 ٪٣٥.٤

Delimitations of the Study:

-EFL secondary school teachers in Beheira Governorate in the first semester of the school year 2023/2024

-Six 21st century skills: communication, collaboration, critical thinking, creativity, self-directedness, and digital literacy. The skills were selected based on a review of secondary stage textbooks and teacher guides.

-Three demographic characteristics: gender, years of experience (from 5 to 9 years, from 10 to 14 years, and 15 years or more), and school type (public and private).

Data collection:

Two kinds of data collection instrument were established to find answers to the research questions. A questionnaire was conducted to reveal the perceptions and practices of EFL teachers related to integrating the 21st century skills. Reflective journals were additionally used as a qualitative data collection instrument for getting in depth information about the study variables.

1. **The 21st century skills questionnaire:**

- **The purpose:** The questionnaire was prepared for a host of purposes: identifying the demographic features of the participants, putting the target skills in order based on the participants' estimation of their significance, revealing the participants' perceptions of the skills mentioned before, and finally showing how far the teachers integrate the skills in their teaching.
- **Description of the questionnaire:** For answering the research questions, a four–section questionnaire was prepared (see Appendix 1) after taking into account the research aims and the relevant literature review. The first section contained items that elicited information on the demographics of the respondents. The second one listed the six skills and the participants were asked to identify the degree of importance for each one. The options were presented in a five–point Likert scale ranging from 1=unimportant, 2=of little importance, 3=moderately important, 4=important, and 5=very important. Therefore, mean scores ranging between (1.00–1.80) express no importance, (1.81–2.60) show little importance, (2.61–3.40) represent moderate importance, (3.41–4.20) reveal high level of importance, and (4.21–5.00) reflect very high level of importance.

  The third part was presented in a five point Likert scale and included 63 items for measuring the teachers' perceptions of the six 21st century skills. The participants were requested to express their perceptions giving a mark to each statement ranging from 1 to 5 where 5= strongly agree 4= agree 3= neutral 2= disagree 1= strongly disagree .The fourth section was devoted to gauging the teachers' practices for integrating 21st century skills in the EFL classroom. It included a total of 70 items in 6 subcategories representing the target skills. These items were assessed with a 5-point Likert scale with 1=Never (0%), 2=Rarely (10%), 3=Sometimes (50%), 4=Often (75%) and 5=usually (95%). Therefore, items with mean scores ranging between (1.00–1.80) express sporadic activity practice, (1.81–2.60) show that the activity is seldom practiced, (2.61–3.40) mean that the activity is sometimes practiced, (3.41–4.20) reveal that the activity is often practiced, and (4.21–5.00) indicate that the activity is usually practiced.

Table (5) Descriptive statistics of the items in the questionnaire

Skill	Items measuring the perceptions	Items measuring the practices
Critical thinking	11 (١ -١١)	11 (١ - ١١)
Collaboration	10 (١٢ -٢١)	13 (١٢ - ٢٤)
Communication	10 (٢٢ -٣١)	11 (٢٥ -٣٥)
Creativity	11 (٣٢ -٤٣)	12 (٣٦ -٤٧)
Self-directedness	11 (٤٤ -٥٣)	11 (٤٨ -٥٨)
Digital literacy	10 (٥٤ - ٦٣)	12 (٥٩ -٧٠)
Total	63	70

- **Timing of the questionnaire:** The average time was calculated and was found to be 80 minutes for the whole questionnaire.
- **Sources of the questionnaire**: Hixson et al. (2012), Kelley, Knowles, Ravitz's (2014) and Han and Sung (2019) were reviewed for designing the questionnaire.

2. Reflective journals:

- **Aim**: These journals were used to gather qualitative data about the participants' experience concerning developing the target skills and their viewpoints about them. That would complement the quantitative data obtained from the questionnaire and yield in-depth information about this variable. The ten teachers who accepted to write reflective journals were asked to respond to certain questions directly related to the questions of the study stated above.
- **Training participants to use reflective journals**: A training session was held by the researchers to train the ten participating teachers on how to use reflective journals professionally to take notes of every detail they thought important in finding out about how to understand the target skills and how they already teach them. Therefore, a model presentation was provided to them. It included oral and written formats of how to reflect upon an experience and write down about it. Then they practiced the job for fifteen minutes. Identifying common codes was presented to them as well.

Validity and reliability of the instruments:

For face validity, a panel of TEFL experts examined the questionnaire. Their suggestions were put in consideration in the final version of the questionnaire. They were asked to judge the coding scheme of reflection journals. They accepted it with minor modifications. For internal validity, the modified version of the questionnaire was tested on a pilot sample of 20 EFL teachers who did not participate in the final sample of the study. Some modifications for clarification were added as well. In addition, testing item consistency

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using correlation coefficients added to the internal validity of the principal instrument, the questionnaire. Table (6) below illustrates that correlation coefficients of all items of the questionnaire were found reliable at the level of $p \leq 0.05$. Moreover, reliability was also measured by Cronbach's Coefficient alpha which shows the average correlation among all the items of the scale. The table below presents the findings of this measure.

Table (6) Correlation coefficients between the score of each item and the total score of the items in the perceptions section

Critical Thinking		Collaboration		Creativity and Innovation		Communication		Digital Literacy		Self-Directed learning	
Item	Correlations	Item	Correlations	Item	Correlations	Item	Correlations	Item	Correlations	Item	Correlations
1	.377**	12	.282*	22	.377**	32	.283*	43	.282*	54	.283*
2	.522**	13	.339*	23	.363**	33	.608**	44	.339*	55	.608**
3	.351*	14	.244*	24	.365**	34	.443**	45	.444**	56	.443**
4	.329*	15	.398**	25	.433**	35	.473**	46	.398**	57	.473**
5	.292*	16	.395**	26	.320*	36	.350*	47	.280*	58	.450**
6	.328*	17	.344*	27	.446**	37	.508**	48	.344*	59	.452**
7	.330*	18	.373**	28	.345*	38	.473**	49	.428**	60	.251*
8	.418**	19	.555**	29	.350*	39	.345*	50	.315*	61	.351*
9	.328*	20	.364**	30	.532**	40	.428**	51	.350*	62	.428**
10	.428**	21	.428**	31	.369**	41	.365**	52	.315*	63	.465**
11	.419**					42	.450**	53	.352*		.349**

The results indicate that this part of the questionnaire is valid. Reliability was also measured by Cronbach's Coefficient alpha which shows the average correlation among all the items of the scale.

Table (7) Reliability coefficients of the EFL teachers' perceptions using Cronbach's Alpha

No.	Skills	Cronbach's Alpha	No.	Skills	Cronbach's Alpha
1	Critical Thinking	.801	4	Communication	.821
2	Collaboration	.784	5	Digital literacy	.810
3	Creativity	.799	6	Self-Directedness	.774
	Total	.877			

According to Pallant (2016), the acceptable value of Cronbach's alpha is from 0.70 to 0.95. The reliability of the final version of the questionnaire was measured statistically. As the results show, reliability coefficients are high, reaching (.877) for the scale as a whole, and range from (.784) to (.821) for the scale dimensions, which is an acceptable degree of reliability statistically. The values of Cronbach's alpha also aided in confirming that the content was comprehensible to the participants. As for the section devoted to measuring the teachers' practices, face validity was checked as

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mentioned before. In addition, internal consistency was checked by calculating correlation coefficients between the score of each item and the total score.

Table (8) Correlation coefficients between the score of each item and the total score

Critical Thinking		Collaboration		Communication		Digital Literacy		Self-Directed learning		Creativity	
Item	Correlations	Item	Correlations	Item	Correlations	Item	Correlations	Item	Correlations	Item	Correlations
1	.412**	12	.312*	25	.326*	36	.501**	48	.289*	60	.383**
2	.419**	13	.573**	26	.401**	37	.389**	49	.505**	61	.455**
3	.391**	14	.335*	27	.343*	38	.406**	50	.306*	62	.411**
4	.368**	15	.354*	28	.314*	39	.384**	51	.356*	63	.586**
5	.307*	16	.364**	29	.303*	40	.475**	52	.342*	64	.413**
6	.489**	17	.336*	30	.342**	41	.483**	53	.362**	65	.448**
7	.381**	18	.393**	31	.334*	42	.440**	54	.465**	66	.413**
8	.290*	19	.365**	32	.434*	43	.372*	55	.436**	67	.389**
9	.583**	20	.352*	33	.358*	44	.515**	56	.386**	68	.417**
10	.520**	21	.345*	34	.503**	45	.487**	57	.589**	69	.430**
11	.365**	22	.445**	35	.371*	46	.325*	58	.553**	70	.371**
		23	.467**			47	.284*	59	.447**		.357*
		24	.367**								

The results show that all values are significant at the level (0.01) indicating that the instrument is valid. Another statistical method was used to check validity, internal consistency of the dimensions. The researcher calculated correlation coefficient between the score of each item and the total score of this part of the questionnaire. All values were found to be statistically acceptable ranging from 5.59 to 7.13. This refers to having internal consistency in this section. As for reliability, Cronbach's Alpha was calculated and the following table gives the results.

Table (9) Reliability coefficients of EFL teachers' practices using Cronbach's Alpha

Skills	Cronbach's Alpha	Skills	Cronbach's Alpha
Critical Thinking	.763	Digital literacy	.821
Collaboration	.844	Creativity	.822
Communication	.799	Self-Directedness	.796
		Total	.861

As the results show, the reliability coefficients are high reaching .86. All values of all constructs are within the acceptable value (0.70 – 0.95).This means that the items of these constructs are internally consistent. Moreover, the test re-test method was used. The results showed that the total mean scores for the first administration and the second one were (2.94) and (3.07) respectively and the reliability coefficient reached (.829). This indicates that the questionnaire is reliable. In short, the research instrument measuring perceptions and practices was found to be valid and reliable based on the statistical results mentioned above.

However, social desirability bias is one of the validity threats of these tools. Four measurements were taken to overcome this limitation: combining information from several sources and methods for securing a broad base of information, making the data collection tools anonymous to give teachers freedom to express their viewpoints freely, giving the participants the chance to answer without interference of the researcher and reassuring the participants that the instruments did not have evaluative purposes. To validate the qualitative results of this study, member checking was used by which the emerging themes were returned to four of the study participants and they provided their feedback, and a rich, thick description which provided more in-depth details. As for the qualitative reliability, cross-checking for the codes was used via asking another coder who is experienced with qualitative studies and coding process to cross check coding and emerging themes. To ensure the reflective journals' validity and reliability, the researchers took into account some methodological considerations about written report data collection as suggested by Moon (2006): first, providing participants with guidance and directions to encourage the reflective process, second, recognizing the participants' individual differences in their thinking and writing; and finally using reliable categories to code the reflective journals, in addition to pairing this method with other data collection methods.

Statistical processing methods:

The data obtained from the questionnaire were organized and statistical computations were made to explore the variables (perceptions and practices) and the effects of the three demographic characteristics mentioned before using SPSS.27. In the following, the statistical methods are listed.

1. Percentages for calculating frequencies,
2. Mean scores and standard deviations of participants' responses for each item and category to determine the level of agreement with each statement of the scale and arrange it according to its relative weight,
3. The t- test to detect the differences between the responses of the sample members, with respect to the gender and school type,
4. ANOVA to detect the differences between the responses of the sample members, with respect to years of experience and
5. Schaffe test to identify the significance of the differences in the responses of the study sample at the level of each statement of the scale.

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On the other hand, the data obtained from the reflective journals were analysed by adopting a categorical-content analysis strategy to identify the themes relevant to the research questions of the study by using coding method. The data were transcribed and analyzed by coding and categorizing for building themes (Creswell, 2014). Thematic analysis was employed for qualitative data analysis since it delivers rich, comprehensive, and complicated data. It is thought to be the most suitable analyzing tool for any study that employs interpretations. Moreover, it enables the researchers to link the topic frequency to the entire material. Qualitative research thematic analysis was broken down into five steps: joining, deconstructing, reconstructing, analyzing, and concluding. The qualitative data obtained through the reflective journals are described qualitatively in sentence form.

Results of research: The results are displayed depending on the questions they answer.

Teachers' perceptions of 21st century skills:

Results of the first question which states "What is the degree of importance of each skill as perceived by the EFL teachers?" are shown in table (10).

Table (10) EFL teachers' perceptions of 21st century skills degree of importance

Skills	Very important		important		To some extent		Less important		Unimportant	
	N	%	n	%	N	%	N	%	N	%
Critical Thinking	40	30.77	42	32.31	24	18.46	17	13.07	7	5.39
Collaboration	37	28.46	35	26.92	27	20.77	19	14.62	12	9.23
Creativity and Innovation	32	24.62	34	26.15	28	21.54	22	16.92	14	10.77
Communication	56	43.08	40	30.77	19	14.61	11	8.46	4	3.08
Digital literacy	55	42.31	40	30.77	20	15.38	11	8.46	4	3.08
Self-Directedness	30	23.07	36	27.70	30	23.08	21	16.15	13	10

Skill	Mean	Std. Deviation	Coefficient of Variation	Order	Importance degree
Critical thinking	3.63	.754	20.77	3	high
Collaboration	3.51	.730	20.79	4	high
Creativity	2.98	.864	28.99	5	Medium
Communication	4.30	.651	15.17	1	very high
Digital literacy	4.26	.633	14.51	2	very high
Self- directedness	3.14	.727	23.15	6	Medium
Total	3.65	.548	15.01	-	High

The table shows that the total degree of the six dimensions is high according to the five-point Likert scale, as the overall average percentage reaches (3.65). The degrees of importance for the six skills are very high for both communication (4.30) and digital literacy

(4.36), high for critical thinking (3.63) and collaboration (3.51), and medium for creativity (2.98) and self- directedness (3.14). The results indicate that both communication and digital literacy get the highest level, while creativity and self-directedness have the lowest degree of importance.

The second question states "How do EFL teachers perceive 21st century skills in language teaching?" The following table demonstrates the results in terms of the six skills.

Table (11) Results of the EFL teachers' perceptions of the critical thinking skill

No.	Item		Verification degree					Mean	Std. Deviation	Chi-square	Order
			Strongly agree	Agree	Neutral	Disagree	Strongly disagree				
1	The EFL needs to be a critical thinker	n.	55	44	19	7	5	4.05	1.06	77.5	3
		%	42.3	33.8	14.6	5.5	3.8				
2	The critical thinker should use various types of reasoning (inductive, deductive, etc.) as appropriate to the situation	n.	51	52	16	8	3	4.07	.985	86.69	2
		%	39.2	40.0	12.3	6.2	2.3				
3	The 21st century learner can analyze how parts of a whole interact with each other to produce overall outcomes	n.	31	42	41	8	8	3.61	1.10	44.38	7
		%	23.8	32.3	31.5	6.2	6.2				
4	Critical thinking is an important process before making decision	n.	50	37	16	17	10	3.76	1.29	43.61	6
		%	38.5	28.5	12.2	13.1	7.7				
5	The language learner can effectively evaluate evidence, arguments, claims, and beliefs	n.	32	34	25	24	15	3.33	1.33	10.69	9
		%	24.6	26.2	19.2	18.5	11.5				
6	Critical thinking is a way of solving	n.	29	48	24	26	3	3.56	1.11	39.46	8
		%	22.3	36.9	18.5	20.0	2.3				

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N.	Item		Verification degree					Mean	Std. Deviation	Chi-square	Order
			Strongly agree	Agree	Neutral	Disagree	Strongly disagree				
	learning problems										
7	The EFL learner should make connections between information and arguments	n.	26	30	36	24	14	3.23	1.26	15.15	10
		%	20.0	23.1	27.6	18.5	10.8				
8	The language learner interprets information and draws conclusions based on the best analysis	n.	26	28	23	41	12	3.11	1.30	16.69	11
		%	20.0	21.5	17.8	31.5	9.2				
9	Critical thinking helps learners examine and weigh alternative points of view and sources of information	n.	53	55	16	6	0	4.19	.826	58.49	1
		%	40.8	42.3	12.3	4.6	0				
10	This digitalized age has made critical thinking an urgent demand	n.	48	48	24	9	.1	4.02	.952	72.53	4
		%	36.9	36.9	18.5	6.9	.8				
11	The language learner in this age should be open and responsive to new and diverse perspectives	n.	43	44	24	15	4	3.82	1.10	47.00	5
		%	33.1	33.8	18.5	11.5	3.1				
	Total (1430)	n.	444	462	264	185	75	3.63	.754	86.30	high
		%	31.5	32.31	18.46	12.94	5.24				

It is clear from the table that all items representing the critical thinking skill obtain means that are within the range of high perceptions. The total mean score is (3.63), and ranges from (4.19) to (3.11). The table reveals that most of the teachers perceive critical thinking as an important skill for the language learner. For example,

75.8% of the participants strongly agreed or agreed that the language learner should be a critical thinker (item1). However, only 9.3% strongly disagreed or disagreed with the statement. This means that most of the participants feel the importance of this skill to language learners in particular. Generally, the teachers believe that the language learner should be engaged in some processes of thinking critically such as making decisions, evaluating and problem solving (items 4, 5 and 6).

Table (12) Results of the EFL teachers' perceptions of creativity

N.	Item		Verification degree					Mean	Std. Deviation	Chi-square	Order
			Strongly agree	Agree	Neutral	Disagree	Strongly disagree				
12	Creativity is a necessary element of problem solving and it opens our minds to new possibilities	n.	33	25	25	21	26	3.13	1.47	15.92	10
		%	25.4	19.2	19.2	16.2	20.0				
13	Generating new solutions that are novel and suitable has become a priority in this age	n.	44	41	18	14	13	3.68	1.31	35.61	1
		%	33.9	31.5	13.8	10.8	10.0				
14	EFL learners needs various ideas or solutions about the same problem or issue	n.	26	38	43	11	12	3.42	1.17	32.84	4
		%	20.0	29.2	33.1	8.5	9.2				
15	Making unusual associations among unrelated things and seeking new ways of looking at a problem have been a demand.	n.	46	34	18	18	14	3.61	1.37	28.30	2
		%	35.4	26.2	13.8	13.8	10.8				
16	The language learner should demonstrate originality and inventiveness in work and understand the real-world limits to adopting new ideas	n.	30	28	26	27	19	3.17	1.38	15.69	9
		%	23.1	21.5	20.0	20.8	14.6				
17	It is required from the language learner nowadays to generate and refine	n.	25	43	26	29	7	3.38	1.18	25.38	5
		%	19.2	33.1	20.0	22.3	5.4				

	solutions to complex problems or tasks based on synthesis, analysis										
18	Creativity is genetically rooted and thus restricted to genius learners only.	n.	23	26	37	27	17	3.08	1.28	18.15	11
		%	17.6	20.0	28.5	20.8	13.1				
19	Variety in producing ideas or solutions about the same problem or issue should be focused on in language teaching	n.	28	30	25	36	11	3.21	1.29	13.31	8
		%	21.5	23.1	19.2	27.7	8.5				
20	It is expected from the language learner to make unusual associations among unrelated things seeking new ways of looking at a problem	n.	26	37	31	24	12	3.31	1.24	13.69	7
		%	20.0	28.5	23.8	18.5	9.2				
21	The 21st century leaner can use a wide range of idea-creation techniques (such as brainstorming)	n.	31	35	31	17	16	3.36	1.31	12.00	6
		%	23.9	26.9	23.8	13.1	12.3				
22	Creativity can be developed among language learners	n.	35	38	28	20	9	3.53	1.23	21.31	3
		%	26.9	29.2	21.5	15.4	6.9				
	Total (1430)	n.	347	375	308	244	156	2.98	.864	30.31	Medium
		%	24.27	26.22	21.54	17.06	10.91				

As displayed in the table, the total degree of the dimension is within the range of medium perceptions, as the mean is (2.98), and the means ranges from (3.08) to (3.68). However, some statements obtain wide agreement such as item13 which states that generating new solutions that are novel and suitable has become a priority in this age. 85% of the participants strongly agree or agree with the statement referring that the skill is of great importance in this century. The statement which states that creativity is genetically rooted and is thus restricted to high achievers only gets agreement of less than half of the participants indicating that the common belief that creativity is something inherited rather than developed is still rooted in their minds.

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Table (13) Results of the EFL teachers' perceptions of the collaboration skill

N.	Item		Verification degree					Mean	Std. Deviation	Chi-square	Order
			Strongly agree	Agree	Neutral	Disagree	Strongly disagree				
23	Students should collaborate during the learning process and completion of a project	n.	44	30	21	18	17	3.50	1.41	19.61	4
		%	33.8	23.1	16.2	13.8	13.1				
24	Language learning is mainly a collaborative process	n.	50	42	18	12	8	3.87	1.20	54.46	1
		%	38.5	32.3	13.8	9.2	6.2				
25	This age requires learners to demonstrate ability to work effectively and respectfully with diverse teams	n.	28	38	42	11	11	3.46	1.16	32.84	6
		%	21.5	29.2	32.3	8.5	8.5				
26	The language learner should exercise flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal	n.	47	32	20	17	14	3.62	1.37	28.38	2
		%	36.1	24.6	15.4	13.1	10.8				
27	It is expected from the language learner to assume shared responsibility for collaborative work	n.	35	31	28	22	14	3.39	1.33	15.38	7
		%	27	23.8	21.5	16.9	10.8				
28	The language learner should value the individual contributions made by each team members	n.	27	45	26	26	6	3.46	1.16	29.30	6
		%	20.8	34.6	20.0	20.0	4.6				
29	This	n.	29	29	30	26	16	3.22	1.33	15.15	9

	digitalized age has made collaboration among language learners a priority.	%	22.3	22.3	23.1	20.0	12.3				
30	Language learning is no longer an individual process in this age	n.	29	31	27	32	11	3.26	1.28	11.38	8
		%	22.3	23.8	20.8	24.6	8.5				
31	Being able to work well with others opens up many opportu-nities in life and helps build strong relationships	n.	39	31	27	21	12	3.49	1.31	16.00	5
		%	30.0	23.8	20.8	16.2	9.2				
32	The language learner needs to work together to accomplish a common goal such as solving problems or answering questions	n.	38	37	31	10	14	3.57	1.28	26.53	3
		%	29.2	28.5	23.8	7.7	10.8				
Total (1300)		n.	366	346	270	195	123	3.51	.730	27.51	High
		%	28.15	26.61	20.76	15	9.46				

As for the skill of collaboration, it is clear from the results that all the statements are within the range of high perceptions for the total degree of the dimension, as the mean is (3.51), and ranges from (3.22) to (3.87). This is an indication that the participants view that the collaboration skill is highly required in language teaching. 74% of the respondents strongly agree or agree with the statement which states that students should collaborate during the learning process and completion of a project, while only 35% do not. The statement which states "language is mainly a collaborative process" obtains the highest means (3.87). This reflects the teachers' perception that collaboration is a crucial skill in this century.

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Table (14) Results of the EFL teachers' perceptions of the communication skill

N.	Item		Verification degree					Mean	Std. Deviation	Chi-square	Order
			Strongly agree	Agree	Neutral	Disagree	Strongly disagree				
33	Communication through various media is the core of language learning in this age.	n.	65	39	16	6	4	4.19	1.02	102.8	1
		%	50.0	30.0	12.3	4.6	3.1				
34	Students in the 21st century can communicate with an ever-expanding community to discuss issues	n.	54	43	15	12	6	3.97	1.15	68.84	6
		%	41.6	33.1	11.5	9.2	4.6				
35	Students in the 21st century should know how to read, interpret and contextualize messages from a global perspective	n.	46	42	33	4	5	3.92	1.03	42.69	9
		%	35.4	32.3	25.4	3.1	3.8				
36	Being able to communicate well verbally and in writing is essential in all social and professional relationships	n.	63	35	13	14	5	4.05	1.17	84.76	4
		%	48.5	26.9	10.0	10.8	3.8				
37	To articulate thoughts and ideas effectively using oral, written, and nonverbal communication skills in a variety of forms and contexts has been a necessity.	n.	59	37	19	12	3	4.05	1.08	76.30	4
		%	45.4	28.5	14.6	9.2	2.3				
38	The 21st century learner should listen effectively to decipher meaning, including knowledge, values, attitudes, and intentions	n.	50	46	15	16	3	3.95	1.09	66.38	7
		%	38.5	35.4	11.5	12.3	2.3				
39	The 21st	n.	62	38	16	11	3	4.11	1.06	88.23	2

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N.	Item		Verification degree					Mean	Std. Deviation	Chi-square	Order
			Strongly agree	Agree	Neutral	Disagree	Strongly disagree				
	century learner should use communication for a range of purposes (e.g. to inform, instruct, motivate, and persuade)	%	47.7	29.2	12.3	8.5	2.3				
40	It is necessary for the language learner to utilize multiple media and technologies, and know how to judge their effectiveness a priority as well as assess their impact	n.	53	39	19	15	4	3.93	1.13	59.69	8
		%	40.8	30.0	14.6	11.5	3.1				
41	It is expected from the 21st century learner to share information effectively through a variety of media, as well as orally and in writing.	n.	58	37	18	15	2	4.03	1.09	73.30	5
		%	44.7	28.5	13.8	11.5	1.5				
42	The 21st century communication is no longer a form of traditional read and write process.	n.	55	44	22	4	5	4.07	1.03	81.00	3
		%	42.4	33.8	16.9	3.1	3.8				
	Total (1300)	n.	565	400	186	109	40	4.30	.651	75.78	Very high
		%	43.46	30.77	14.31	8.38	3.08				

The communication skill proved to be one of the most urgently needed skills in this century as viewed by the participants as the mean was (4.30). The means ranges from (4.19) to (3.92). In general, the participants responded positively to almost all items in the dimension depending on the fact that language is originally a means of communication and importance of this communication with various modes and through a multitude of channels has been intensified especially with the progress occurring in technology as in statements 33 and 40.

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Table (15) Results of the EFL teachers' perceptions of the self-directedness skill

N.	Item		Verification degree					Mean	Std. Deviation	Chi-square	Order
			Strongly agree	Agree	Neutral	Disagree	Strongly disagree				
43	It has become necessary for the EFL learners to be self-directed owing to the information explosion	n.	33	29	27	18	23	3.23	1.42	15.07	7
		%	25.4	22.3	20.8	13.8	17.7				
44	The language learner should view failure as an opportunity to learn; understand that creativity and innovation is a long-term, cyclical process of small successes and frequent mistakes	n.	42	41	20	14	13	3.65	1.30	31.92	1
		%	32.3	31.5	15.4	10.8	10.0				
45	It is a must for the language learner to be an autonomous learner especially with the educational reform	n.	24	39	45	11	11	3.41	1.13	37.84	5
		%	18.4	30.0	34.6	8.5	8.5				
46	Being able to take responsibility for their learning by identifying topics to pursue and processes for their own learning has become crucial	n.	41	36	21	18	14	3.55	1.34	21.46	2
		%	31.5	27.7	16.2	13.8	10.8				
47	The 21st century learner should become able to review their own work and respond to	n.	30	29	28	26	17	3.22	1.35	14.23	8
		%	23.1	22.3	21.5	20.0	13.1				

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N.	Item		Verification degree					Mean	Std. Deviation	Chi-square	Order
			Strongly agree	Agree	Neutral	Disagree	Strongly disagree				
	feedback										
48	Monitoring learning by identifying strengths and weaknesses is a necessary self-directed skill	n.	24	46	28	26	6	3.43	1.14	31.07	4
		%	18.5	35.4	21.5	20.0	4.6				
49	The language learner should manage time properly based on demands of the task	n.	21	27	38	27	17	3.06	1.26	13.69	10
		%	16.1	20.8	29.2	20.8	13.1				
50	Using available resources properly and independently for completing a task has been a main requirement for success	n.	25	29	29	36	11	3.16	1.26	13.23	9
		%	19.3	22.3	22.3	27.7	8.5				
51	The EFL learner is mainly an autonomous learner	n.	25	38	32	23	12	3.31	1.23	14.84	6
		%	19.2	29.2	24.6	17.7	9.2				
52	The shift in the teachers' role from the source of knowledge to a facilitator fosters self-directedness	n.	27	36	34	17	16	3.31	1.28	13.31	6
		%	20.7	27.7	26.2	13.1	12.3				
53	The 21st century learners should monitor their learning by planning and re-planning for the task	n.	32	39	32	18	9	3.51	1.20	22.84	3
		%	24.7	30.0	24.6	13.8	6.9				
	Total (1430)	n.	324	389	334	234	149	3.14	.727	66.15	Medium
		%	22.66	27.20	23.36	16.36	10.42				

On the other hand, the statements of self-directedness are within the range of medium perceptions. The total means is (314) and mean scores of the statements range from (3.06) to (3.65).These results mean that the teachers' perceptions of this skill is still in its infancy due to

their unfamiliarity with the skill and their belief that it is not included in the target outcomes. For example, more than half of the participants responded to the statement that the shift in the teachers' role from the source of knowledge to a facilitator to foster self-directedness with either strongly disagree, disagree, or a neutral stance. This means that they doubt the utility of the skill due its nature as a metacognitive one.

Table (16) Results of the EFL teachers' perceptions of the digital literacy skill

No.	Item		Verification degree					Mean	Std. Deviation	Chi-square	Order
			Strongly agree	Agree	Neutral	Disagree	Strongly disagree				
54	It is important for language learners in the 21st century to know how to use search engines to locate information	n.	64	38	21	4	3	4.20	.975	101.0	1
		%	49.2	29.2	16.2	3.1	2.3				
55	Multi-platforms and e-learning systems should be used for synchronous and asynchronous communication with other students	n.	53	43	17	12	5	3.97	1.12	66.76	5
		%	40.8	33.1	13.1	9.2	3.8				
56	In the 21st century, language learners should know how to use computers and other technology effectively to enhance learning	n.	43	43	35	4	5	3.88	1.03	60.92	8
		%	33.1	33.1	26.9	3.1	3.8				
57	It is important for students of the 21st century to know how to evaluate the information accessed and gathered.	n.	61	36	14	14	5	4.03	1.16	79.00	4
		%	46.9	27.7	10.8	10.8	3.8				
58	The interpretation of multimodal texts, such as images, graphemes and presentations, is considered essential for learners	n.	57	38	20	12	3	4.03	1.08	71.76	4
		%	43.9	29.2	15.4	9.2	2.3				

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N.	Item		Verification degree					Mean	Std. Deviation	Chi-square	Order
			Strongly agree	Agree	Neutral	Disagree	Strongly disagree				
	nowadays										
59	It is important for students of the 21st century to select information according to their needs and purposes	n.	48	47	16	16	3	3.93	1.09	63.61	7
		%	36.9	36.2	12.3	12.3	2.3				
60	21st century language learner should be familiar with online learning resources such as dictionaries and thesauri	n.	62	37	17	11	3	4.10	1.07	86.61	2
		%	47.6	28.5	13.1	8.5	2.3				
61	Students in the 21st century must respect the social conventions of the internet while using it.	n.	55	38	18	15	4	3.96	1.14	63.61	6
		%	42.4	29.2	13.8	11.5	3.1				
62	The process of language teaching should incorporate managing learning and producing products using appropriate information and communication technologies	n.	59	37	17	15	2	4.04	1.09	76.46	3
		%	45.4	28.5	13.1	11.5	1.5				
63	Digital literacy should be promoted by all teachers including EFL teachers	n.	52	45	24	4	5	4.03	1.02	75.61	4
		%	40.0	34.6	18.5	3.1	3.8				
	Total (1300)	n.	554	402	199	107	38	4.36	.633	69.10	Very high
		%	42.62	30.92	15.31	8.23	2.92				

In accordance with the progress happening in the Egyptian educational setting, the statements representing digital literacy skill are within the range of very high as the mean is (4.36), and the items means range from (3.88) to (4.20). For example, 75.4% of the participants agreed that the language learners need to know how to use search engines to locate information. The educational revolution has located

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technology in the center of the teaching learning process where students are encouraged to use technological tools in learning as well as testing.

1. The teachers' practices for integrating 21st century skills in teaching:

To answer the third research question which focuses on integrating 21st century skills into teaching practices, the teaching practices were examined under six dimensions representing the target skills. Analysis of teachers' practices within each skill and the mean scores for the whole scale and the sub-skills are presented in the following tables.

Table (17) Results of the EFL teachers' practices integrating the skill of critical thinking

N.	Item: As an EFL teacher, I encourage my students to..		Verification degree: Always	Frequently	Sometimes	Rarely	Never	Mean	Std. Deviation	Chi-square	Order
1	Compare information from different sources before completing a task or assignment	n.	20	24	28	29	29	2.82	1.37	12.38	10
		%	15.4	18.5	21.5	22.3	22.3				
2	Draw their own conclusions based on analysis of numbers, facts, or relevant information	n.	46	48	19	12	5	3.90	1.10	60.38	1
		%	35.4	36.9	14.6	9.2	3.9				
3	Summarize or create their own interpretation of what they have read or been taught	n.	21	37	46	14	12	3.31	1.14	34.07	4
		%	16.2	28.5	35.4	10.8	9.1				
4	Analyze competing arguments, perspectives or solutions to a problem	n.	44	29	17	25	15	3.47	1.42	20.61	2
		%	33.8	22.3	13.1	19.2	11.6				
5	Develop a persuasive argument based on supporting evidence or reasoning	n.	27	30	24	31	18	3.13	1.36	14.23	5
		%	20.8	23.1	18.5	23.8	13.8				
6	Change one's opinion, depending on how	n.	20	33	26	39	12	3.07	1.24	17.30	6
		%	15.4	25.4	20.0	30.0	9.2				

N.	Item As an EFL teacher, I encourage my students to..		Verification degree					Mean	Std. Deviation	Chi-square	Order
			Always	Frequently	Sometimes	Rarely	Never				
	much is known about the issue										
7	Analyze if a piece of information is truthful or not	n.	21	26	36	30	17	3.03	1.26	18.53	7
		%	16.2	20.0	27.7	23.1	13.0				
8	Effectively evaluate evidence, arguments, claims, fallacies , beliefs and major alternative points of view	n.	21	27	24	43	15	2.96	1.28	16.92	9
		%	16.2	20.8	18.5	33.1	11.4				
9	Use various types of reasoning (inductive, deductive, etc.) as appropriate to the situation	n.	18	31	32	34	15	3.02	1.23	11.92	7
		%	13.8	23.8	24.6	26.2	11.5				
10	Emphasize deep understanding rather than shallow knowledge	n.	31	35	25	27	12	3.35	1.29	11.69	3
		%	23.8	26.9	19.2	20.8	9.3				
11	Try to think backward to find the solution	n.	16	18	31	43	22	2.71	1.25	19.00	11
		%	12.3	13.8	23.8	33.2	16.9				
	Total (1430)	n.	285	338	308	327	172	3.03	.605	62.23	Medium
		%	19.93	23.64	21.54	22.86	12.3				

As stated in the table, all the statements related to the critical thinking skill are within the range of medium level of implementation. For this skill, the total mean was (3.03), and means of the statements ranged from (2.71) to (3.90). It was found that 44.6% of the participants sometimes, rarely or never allow their students compare information from different sources before completing a task or assignment which reflects their tendency toward depending heavily on the textbook as the sole source of knowledge. This comes contradictory with the teaching learning philosophy of the 21st century and multimodality. These results thus indicate that teachers find difficulties in supporting the development of the skill.

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Table (18) Results of the EFL teachers' practices integrating the skill of collaboration

N.	Item		Verification degree					Mean	Std. Deviation	Chi-square	Order
			Always	Frequently	Sometimes	Rarely	Never				
12	Value utility of collaborative work especially in this age	n.	31	23	28	19	29	3.06	1.47	13.69	7
		%	23.8	17.7	21.5	14.6	22.3				
13	set goals and create a plan for their team	n.	23	25	26	20	36	2.83	1.46	15.61	11
		%	17.7	19.2	20.0	15.4	27.7				
14	Create joint products using contributions from each student	n.	18	33	44	15	20	3.10	1.24	22.84	6
		%	13.8	25.4	33.8	11.5	15.5				
15	Work as a team to incorporate feedback on group tasks or products	n.	38	31	19	20	22	3.33	1.46	10.38	2
		%	29.2	23.8	14.6	15.5	16.9				
16	Give feedback to peers or assess other students' work	n.	27	24	27	29	23	3.02	1.40	19.23	8
		%	20.8	18.5	20.8	22.3	17.6				
17	Play various roles in the team (member, leader. etc.)	n.	25	40	26	29	10	3.31	1.23	18.46	3
		%	19.2	30.8	20.0	22.3	7.7				
18	Demonstrate ability to work effectively and respectfully with diverse teams	n.	18	25	37	29	21	2.92	1.27	19.15	9
		%	13.8	19.2	28.5	22.3	16.2				
19	Exercise flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal	n.	28	28	23	36	15	3.13	1.34	16.38	5
		%	21.5	21.5	17.7	27.7	11.6				
20	Create a task list that divides project work reasonably among the team or create a sequence of tasks	n.	25	33	30	26	16	3.19	1.30	16.38	4
		%	19.2	25.4	23.1	20.0	12.3				
21	Assume	n.	27	31	32	20	20	3.19	1.34	15.15	4

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N.	Item		Verification degree					Mean	Std. Deviation	Chi-square	Order
			Always	Frequently	Sometimes	Rarely	Never				
	shared responsibility for collaborative work, and value the individual contributions made by each team member	%	20.8	23.8	24.6	15.4	15.4				
22	Show respect and reward ideas of others	n.	31	32	29	23	15	3.31	1.32	17.69	3
		%	23.8	24.6	22.3	17.7	11.6				
23	Help the team members solve problems and manage conflicts	n.	49	39	23	12	7	3.85	1.18	14.86	1
		%	37.7	30.0	17.7	9.2	5.4				
24	Respect and follow rules of working collaboratively	n.	17	31	29	28	25	2.90	1.32	14.61	10
		%	13.1	23.8	22.3	21.5	19.3				
	Total (1690)	n.	259	306	373	395	357	3.03	.489	88.46	Medium
		%	15.33	18.11	22.07	23.37	21.12				

Similarly, all the statements related to the collaboration skill are within the range of medium level. The total mean is (3.03) and means of the statements range from (2.83) to (3.83). The contradiction between the teachers' perceptions toward this skill and their activities integrating it has become obvious. For example, less than half of the participants rarely or do not help students set goals for the team (statement 13) which means that even when students work in group, they work randomly and that the language classroom is still dominated by individual work to avoid disorder and other hazards of working collaboratively.

Table (19) Results of the EFL teachers' practices integrating the skill of communication

N.	Item		Verification degree					Mean	Std. Deviation	Chi-square	Order
			Always	Frequently	Sometimes	Rarely	Never				
25	Structure data for use in written products or oral presentations (e.g., creating charts, tables or graphs?)	n.	32	20	23	32	23	3.04	1.45	14.84	4
		%	24.6	15.4	17.7	24.6	17.7				
26	Convey their ideas using media other than a written paper (e.g., posters, video, blogs,	n.	17	23	26	44	20	2.79	1.27	17.30	9
		%	13.1	17.7	20.0	33.8	15.4				

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No.	Item		Verification degree					Mean	Std. Deviation	Chi-square	Order
			Always	Frequently	Sometimes	Rarely	Never				
	etc.)										
27	Prepare and deliver an oral presentation to the teacher or others	n.	23	33	42	18	14	3.25	1.21	20.07	1
		%	17.7	25.4	32.3	13.8	10.8				
28	Answer questions in front of an audience	n.	37	23	19	32	19	3.20	1.45	10.15	2
		%	28.5	17.7	14.6	24.6	14.6				
29	Decide how they will present their work or demonstrate their learning	n.	21	22	31	36	20	2.90	1.30	17.76	7
		%	16.2	16.9	23.8	27.7	15.4				
30	Use respectful, inoffensive language and proper register depending on the person they are addressing	n.	22	35	26	36	11	3.16	1.24	16.23	3
		%	16.9	26.9	20.0	27.7	8.5				
31	Encourage knowledge sharing among communities of practition-ers, using face-to-face, virtual and blended communications	n.	15	17	32	44	22	2.68	1.23	22.23	11
		%	11.5	13.1	24.6	33.9	16.9				
32	Take part in various communicat-ive tasks inside and outside the classroom	n.	18	20	30	45	17	2.82	1.24	21.46	8
		%	13.8	15.4	23.1	34.6	13.1				
33	Use body language effectively to enhance comprehensiveness	n.	26	20	30	34	20	2.98	1.35	15.84	5
		%	20.0	15.4	23.1	26.2	15.3				
34	Use communication strategies to overcome communication limitations	n.	23	23	32	31	21	2.96	1.33	14.00	6
		%	17.7	17.7	24.6	23.8	16.2				
35	Provide a wide range of communicative situations occurring inside and outside the classroom	n.	24	14	22	45	25	2.74	1.38	20.23	10
		%	18.5	10.8	16.9	34.6	19.2				
Total (1430)		n.	258	250	313	397	212	2.91	.679	61.69	Medium
		%	18.04	17.48	21.89	27.76	14.83				

As displayed in the table, the results show that all the statements related to the communication skill are within the range of medium level of practice. The total mean is (2.91), and means of the statements range from (2.68) to (3.25). Despite the teachers' perception that

language is a means of communication and communication is a crucial language skill, their teaching practices do not go along with this belief due to certain constraints in the Egyptian context.

Table (20) Results of the EFL teachers' practices integrating the skill of digital literacy

N.	Item		Verification degree					Mean	Std. Deviation	Chi-square	Order
			Always	Frequently	Sometimes	Rarely	Never				
36	Use technology or the Internet for self-instruction	n.	32	18	24	28	28	2.98	1.48	14.31	6
		%	24.6	13.8	18.5	21.5	21.6				
37	Select appropriate technology tools or resources for completing a task	n.	22	22	26	30	30	2.81	1.40	12.46	9
		%	16.9	16.9	20.0	23.1	23.1				
38	Evaluate the credibility and relevance of online resources	n.	26	26	32	22	24	3.06	1.38	12.15	5
		%	20.0	20.0	24.6	16.9	18.5				
39	Use technology to analyze information (e.g., databases, spreadsheets, graphic programs, etc.)	n.	22	25	29	30	24	2.93	1.35	17.69	8
		%		19.2	22.3	23.1	18.5				
40	Use technology to help them share information (e.g., multi-media presentations using sound or video, presentation software, blogs, podcasts, etc.)	n.		26	29	26	22	3.07	1.38	10.00	4
		%		20.0	22.3	20.0	16.9				
41	Use technology to support team-work or collaboration (e.g., shared work spaces, email exchanges, giving and receiving feedback, etc.)	n.		30	25	31	23	2.96	1.35	12.92	7
		%		23.1	19.2	23.8	17.7				
42	Access information	n.		27	17	22	29	3.13	1.53	29.23	3
		%		20.8	13.1	16.9	22.3				

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N.	Item		Verification degree					Mean	Std. Deviation	Chi-square	Order
			Always	Frequently	Sometimes	Rarely	Never				
	efficiently (time) and effectively (sources)										
43	Manage the flow of information from a wide variety of sources	n.		22	29	33	28	2.76	1.33	17.23	12
		%		16.9	22.3	25.4	21.6				
44	Apply a fundamental understanding of the ethical/legal issues surrounding the access	n.		24	25	28	20	3.16	1.42	15.46	2
		%		18.5	19.2	21.5	15.4				
45	Use technology as a tool to research, organize, evaluate and communicate information	n.		40	28	8	11	3.73	1.22	13.61	1
		%		30.8	21.5	6.2	8.4				
46	Use digital technologies appropriately to access, manage, integrate, evaluate and create information to successfully function in a knowledge economy	n.		12	20	43	27	2.77	1.44	39.92	11
		%		9.2	15.4	33.1	20.8				
47	Make learners careful not to reveal any sensitive personal information	n.		20	24	37	27	2.79	1.38	20.23	10
		%		15.4	18.5	28.5	20.7				
	Total (1560)	n.		292	308	338	293	2.89	.739	63.46	Medium
		%		18.72	19.74	21.67	18.78				

Regarding the skill of digital literacy, the statements are also within the range of medium level of practices. The total mean score is (2.89), and mean scores of the statements range from (2.77) to (3.73). It was found that the teachers' practices are at the medium level as well. This surprisingly does not keep up with the ongoing reform in the teaching policy which is supposed to interweave technology and teaching.

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Table (21) Results of the EFL teachers' practices integrating the skill of creativity

N.	Item		Verification degree					Mean	Std. Deviation	Chi-square	Order
			Always	Frequently	Sometimes	Rarely	Never				
48	Use idea creation techniques such as brainstorming or concept mapping	n.	23	23	33	24	27	2.93	1.38	12.76	2
		%	17.7	17.7	25.4	18.5	20.7				
49	Solve complex problems or answer questions that have no single correct solution or answer	n.	15	30	29	27	29	2.80	1.33	16.00	7
		%	11.5	23.1	22.3	20.8	22.3				
50	Generate their own ideas about how to confront a problem or question?	n.	11	24	45	22	28	2.75	1.22	23.46	9
		%	8.5	18.5	34.6	16.9	21.5				
51	Test out different ideas and work to improve them	n.	27	21	25	25	32	2.89	1.47	24.62	4
		%	20.8	16.2	19.2	19.2	24.6				
52	Invent a solution to a complex, open-ended question or problem	n.	18	14	33	34	31	2.64	1.32	13.31	10
		%	13.8	10.8	25.4	26.2	23.8				
53	Create an original product or performance to express their ideas	n.	15	32	29	33	21	2.90	1.26	19.23	3
		%	11.5	24.6	22.3	25.4	16.1				
54	Provide multiple ways for students to express their understanding	n.	9	13	42	37	29	2.50	1.14	32.46	11
		%	6.9	10.0	32.3	28.5	22.3				
55	Write creatively using figures of speech and imagination about creative topics	n.	17	20	32	39	22	2.77	1.27	13.00	8
		%	13.1	15.4	24.6	30.0	16.9				
56	Ask questions with multiple	n.	20	26	33	30	21	2.95	1.30	14.84	1
		%	15.4	20.0	25.4	23.1	16.2				

N.	Item		Verification degree					Mean	Std. Deviation	Chi-square	Order
			Always	Frequently	Sometimes	Rarely	Never				
	answers in mind for provoking creativity										
57	Use brainteasers, word problems and puzzles	n.	15	27	39	24	25	2.86	1.27	11.38	6
		%	11.5	20.8	30.0	18.5	19.2				
58	Provide ungraded practice problems for fostering creativity	n.	17	25	36	30	22	2.88	1.27	18.23	5
		%	13.1	19.2	27.7	23.1	16.9				
59	Enables innovative learning methods that integrate the use of supportive technologies, inquiry- and problem-based approaches and higher order thinking skills	n.	20	22	35	27	26	2.86	1.33	15.12	6
		%	15.4	16.9	26.9	20.8	20.0				
	Total (1560)	n.	207	277	411	352	313	2.78	.858	73.07	Medium
		%	13.27	17.76	26.35	22.56	20.06				

Based on the results, it was found that all the teachers' practices that develop creativity were within the range of medium level. The total mean and the range of means were (2.78), (2.95) and (2.50) respectively. The highest mean score was for the statement which states "ask questions with multiple answers in mind for provoking creativity" and the lowest mean score was for the statement stating "invent a solution to a complex, open-ended question or problem". A poor percent of teachers (Only 13%) always address activities that develop this skill and approximately 50% of them rarely or never develop this skill.

Table (22) Results of the EFL teachers' practices integrating the skill of self-directed learning

N.	Item		Verification degree					Mean	Std. Deviation	Chi-square	Order
			Always	Frequently	Sometimes	Rarely	Never				
60	Take initiative when confronted with a difficult problem or question?	n.	17	12	19	37	45	2.37	1.38	31.07	8
		%	13.1	9.2	14.6	28.5	34.6				

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No.	Item		Verification degree					Mean	Std. Deviation	Chi-square	Order
			Always	Frequently	Sometimes	Rarely	Never				
61	Monitor, define, prioritize and complete tasks without direct help	n.	10	15	24	33	48	2.27	1.28	35.15	10
		%	7.7	11.5	18.5	25.4	36.9				
62	Choose for themselves what questions to pursue or resources to use	n.	13	18	28	29	42	2.46	1.33	19.31	7
		%	10.0	13.8	21.5	22.3	32.4				
63	Monitor their own progress towards completion of a complex task and modify their work accordingly	n.	23	16	17	35	39	2.60	1.47	16.92	5
		%	17.7	12.3	13.1	26.9	30.0				
64	Encourage them not to easily give up. I encourage perseverance	n.	27	19	19	28	37	2.77	1.51	18.61	2
		%	20.8	14.6	14.6	21.5	28.5				
65	Set goals with tangible and intangible success criteria	n.	28	25	15	33	29	2.92	1.48	17.07	1
		%	21.5	19.2	11.5	25.4	22.4				
66	Manage goals and time	n.	22	15	16	37	40	2.55	1.45	21.31	6
		%	16.9	11.5	12.3	28.5	30.8				
67	Demonstrate commitment to learning as a lifelong process	n.	21	24	17	32	36	2.70	1.45	19.46	3
		%	16.2	18.5	13.1	24.6	27.6				
68	Plan the steps they will take to accomplish a complex task	n.	28	24	19	28	31	2.92	1.49	13.31	1
		%	21.5	18.5	14.6	21.5	23.9				
69	Manage workload efficiently and Independently	n.	20	21	21	30	38	2.65	1.43	19.46	4
		%	15.4	16.2	16.2	23.1	29.1				
70	Balance tactical (short-term) and strategic (long-term) goals	n.	13	10	19	51	37	2.31	1.24	46.92	9
		%	10.0	7.7	14.6	39.2	28.5				
	Total (1430)	n.	222	199	214	373	422	2.89	.739	52.93	Medium
		%	15.53	13.91	14.97	26.08	29.51				

Like most of the skills, the statements of self-directed learning were within the range of medium practice. The total mean was (2.89), and means for the statements ranged from (2.92) to (2.27). For example, 59% of the teacher rarely or do not help students manage goals and time which means that very limited time is allocated for qualifying students to be self-directed. Within the scope of self-directed learning skill, the most frequent practice was "Plan the steps they will take to accomplish a complex task" and the least frequent one was "Monitor, define, prioritize and complete tasks without direct help".

The impact of some demographic characteristics:

A.Gender: To answer the question related to the impact of some demographics on EFL teachers' perceptions of some 21st century skills, the researchers used t-test for independent samples. The following table shows the results.

Table (23) Results of the (t) test of the EFL teacher's perceptions based on their gender

Dimensions	Gender	N	Mean	Std. Deviation	Paired Differences Mean	Std. Error Mean	T. value	Sig.
Critical thinking	Male	65	3.54	.860	.173	.131	1.32	.190
	Female	65	3.72	.626				
Collaboration	Male	65	3.84	.750	.651	.115	5.66	.01
	Female	65	3.19	.544				
Communication	Male	65	4.09	.685	.393	.109	3.60	.01
	Female	65	4.49	.554				
Creativity	Male	65	2.23	.425	1.51	.073	20.68	.01
	Female	65	3.73	.415				
Self-directedness	Male	65	3.12	.824	.041	.128	.320	.744
	Female	65	3.16	.622				
Digital literacy	Male	65	4.61	.440	.497	.103	4.83	.01
	Female	65	4.11	.700				
Total	Male	65	2.73	.324	.605	.051	11.90	.01
	Female	65	3.34	.248				

The value of the calculated (t) is (11.90) for the total score which means that there are significant differences at the level of (0.01) between male and female participants in their perceptions of the target skills. The means of the male and female teachers are (2.73) and (3.34) respectively. The results show that the male teachers are higher in digital literacy and collaboration, while the female teachers' perceptions are higher in communication and creativity, and no differences are found in their perceptions of self-directedness and critical thinking. The following figure illustrates these results.

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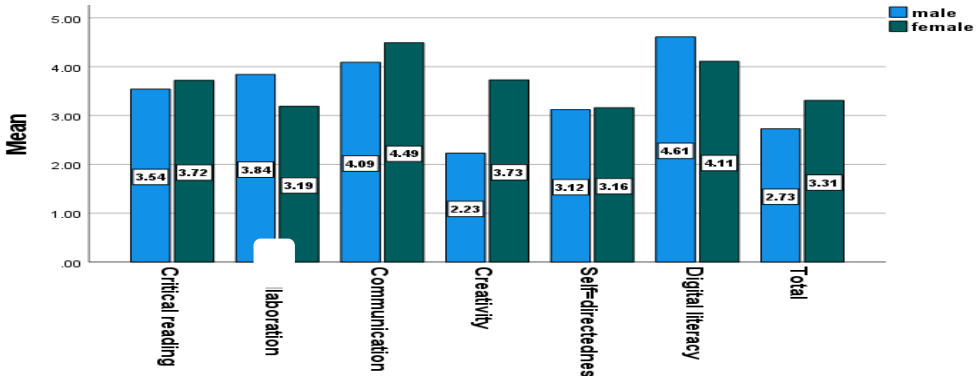

Figure (7) Results of the (t) test of the EFL teacher's perceptions based on their gender

B.Years of experience: In order to find out whether teachers' years of experience make a significant difference in their perceptions of 21st century skills or not, one-way ANOVA test was administered for each sub-skill.

Table (24) Results of ANOVA of the EFL teachers' perceptions of 21st century based on the variable of experience (5-9, 10-14 and 15+ years).

Skills		Df.	F	Sig.	Skill		Df.	F	Sig
Critical thinking	Between Groups	2	6.087	.003	Creativity	Between Groups	2	4.239	.017
	Within Groups	127				Within Groups	127		
	Total	129				Total	129		
Collaboration	Between Groups	2	3.660	.028	Self– directedness	Between Groups	2	23.028	.000
	Within Groups	127				Within Groups	127		
	Total	129				Total	129		
Communication	Between Groups	2	17.948	.000	Digital-literacy	Between Groups	2	9.076	.000
	Within Groups	127				Within Groups	127		
	Total	129				Total	129		
Total	Between Groups	2	32.076	.000					
	Within Groups	127							
	Total	129							

As illustrated in the table, (F) values are all significant at the (.01) level. This means that there are statistically differences between the study groups due to years of experience. In other words, the teachers' experience significantly affects their perceptions of the 21st century skills.

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Table (25) Means and standard deviations of the EFL teachers' perceptions of the skills based on years of experience

Experience		N	Mean	Std. Deviation	Skills	Experience	N	Mean	Std. Deviation
Critical thinking	5-9	41	3.77	.901	Creativity	5-9	41	3.04	.753
	10-14	43	3.29	.763		10-14	43	2.83	.888
	15 +	46	3.23	.650		15+	46	2.57	.604
Collaboration	5-9	41	3.67	.676	Self-directedness	5-9	41	3.42	.796
	10-14	43	3.49	.757		10-14	43	2.58	.504
	15 +	46	3.24	.770		15+	46	2.65	.556
Communication	5-9	41	4.39	.744	Digital literacy	5-9	41	4.30	.805
	10-14	43	4.25	.692		10-14	43	3.91	.755
	15 +	46	3.47	.868		15+	46	3.53	.948
Total	5-9	41	3.76	.340					
	10-14	43	3.39	.393					
	15 +	46	3.12	.390					

The results show that teachers whose experience ranges from 5 to 9 years obtain the highest mean totally (3.76) followed by those who have experience ranging from 10 to 14 years. To reveal the direction of these differences, the researcher used Scheffe test. The following table shows the results of this test.

Table (26) Scheffe test results for detecting the direction of differences between groups according to the years of experience variable

Critical thinking		5-9	10-14	15 +		5-9	10-14	15 +
	Mean	3.77	3.29	3.23	Creativity	3.04	2.83	2.57
	5-9	--------	.47399*	.53682*		------	-.21157	.46987*
	10-14		---------	.06283			--------	.25830
Collaboration		5-9	10-15	15 +		5-9	10-14	15 +
	Mean	3.67	3.49	3.24		3.42	2.58	2.65
	5-9	--------	.17431	.42477*	Self-directedness	--------	.84042*	.76353*
	10-14		---------	.25047			---------	-.07689
Communication		5-9	10-15	15 +		5-9	10-14	15 +
	Mean	4.39	4.25	3.47		4.30	3.91	3.53
	5-9	-----	.14163	.91556*	Digital literacy	---------	.39117	.77173*
	10-14		-----	.77392*			---------	-.39117
Total		5-9	10-15	15 +				
	Mean	3.76	3.39	3.12				
	5-9	.....	.37218*	.64705*				
	10-14		.....	-.37218*				

*. The mean difference is significant at the 0.05 level.

Results of the comparisons show that the direction of the differences in the EFL teachers' perceptions as a whole according to the experience variable was in favor of the group whose experience ranges from 5 to 9 years. The means are (3.76, 3.39, 3.12) respectively,

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while there are no significant differences between the groups ranging from 10 to14 and more than 15 years .The following figure shows these results.

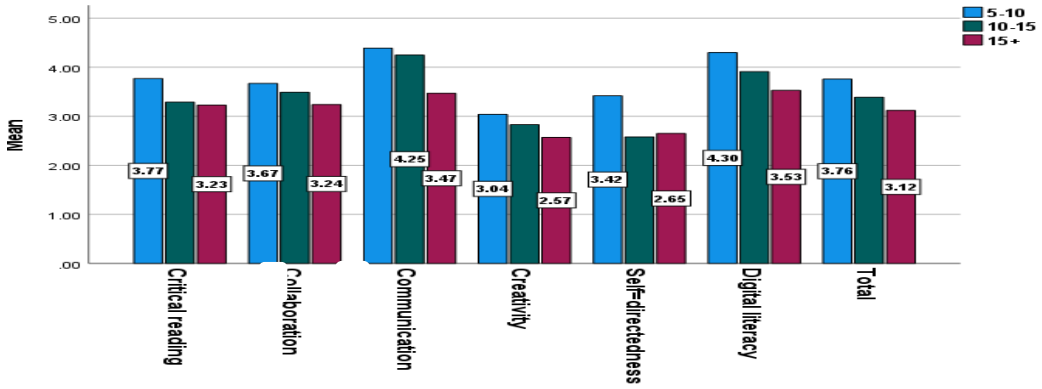

Figure (8) The differences in perceptions based on years of experience

C.School type: The researchers used the t-test for independent groups to answer the question related to whether school type has an impact on EFL teachers' perceptions of the target skills .

Table (27) Results of the (t) test for independent groups for detecting the differences in perceptions due to the school type

Dimensions	School type	N	Mean	Std. Deviation	Paired Differences Mean	Std. Error Mean	T.value	Sig.
Critical thinking	Public	67	3.28	.674	.498	.123	4.04	.01
	Private	63	3.78	.734				
Collaboration	Public	67	3.25	.597	.505	.116	4.34	.01
	Private	63	3.75	.727				
Communication	Public	67	3.97	.743	.514	.118	4.35	.01
	Private	63	4.48	.598				
Creativity	Public	67	2.73	.893	.522	.145	3.60	.01
	Private	63	3.25	.750				
Self-directedness	Public	67	3.00	.846	.283	.125	2.26	.05
	Private	63	3.29	.545				
Digital literacy	Public	67	3.94	.806	.485	.123	3.94	.01
	Private	63	4.42	.574				
Total	Public	67	2.89	.434	.312	.068	4.58	.01
	Private	63	3.20	.334				

The table shows that the value of (t) is statistically significant at the level of (0.01) and that the mean score of the public group was (2.89) in the total score, and ranged between (2.73) and (3.97) in the sub-dimensions, while the mean score of the private school group was (3.20) in the total score, and ranged between (3.25) and (4.48) in the sub-dimensions. It was found that the value of the calculated t-ratio was (4.58) for the total score, and ranged between (2.26) and (4.35) in

the sub-skills in favor of private school group. The following figure illustrates these results.

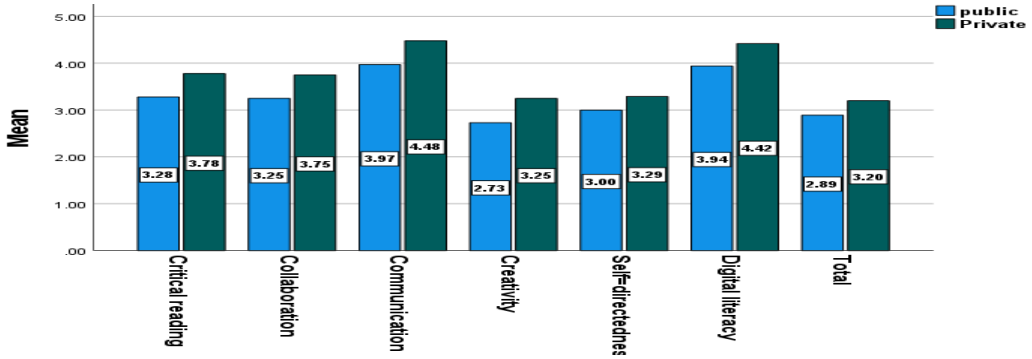

Figure (9) Results of the (t) test for independent groups for detecting the differences in perceptions due to the school type

The figure illustrates that the private schools group outperforms the public school one in the total mean and means of the six dimensions referring to the importance of providing more training courses for the public school teachers. Moreover, the constraints that limit the public schools teachers seem to be greater than those found in the private schools.

Qualitative findings:

Data obtained from reflective journals were analysed through content analysis as explained before. Analysis resulted in finding out three main themes: the teachers' perceptions of the skills utility, their experience concerning incorporating these skills in their teaching, and appropriateness of the environment for developing the skills. Due to confidentiality verification, participants' names are coded as P1, P2, P3, etc. Findings are presented with reference to the three themes as follows. For the first theme, all the participants stated that the integration of 21st century skills into English classes is necessary for keeping up with the age, the current educational reform measures and the labor market. P8 wrote "English language teaching can be enhanced when incorporating these skills. They make teaching more effective". P10 also wrote "In the future, these skills will be important to find jobs". This reflects the teachers' awareness of the importance of the skills to both teachers and learners now and later on. For language learners in particular, individuals need more than language skills to advance in their education and professional lives. They need to be collaborative, be able to handle complex situations, and think creatively and critically. This was asserted by P3, P4 and P9. P7 stated "The fact that if our students, whom we want to be universal and not be behind the times, do not have such skills, they will be deficient in

all areas of life". Qualitative data seem to support data emanating from the questionnaire.

In their journals, the teachers emphasized the benefits of communication skills in expressing ideas confidently and effectively. They also stressed the significance of collaboration skills in completing tasks more efficiently and incorporating diverse perspectives. Additionally, they recognized the value of critical thinking skills in making objective decisions and gathering comprehensive information. Finally, creativity skills were seen as essential in generating innovative ideas. However, the degree of importance varied. These are examples of what they wrote.

- P5: "Use of technology is the 21st century skill. It is the number ONE skill in this century".
- P9: "All learners should be good communicators and critical thinkers but only some of them can think creatively".
- P10: "Self-directedness makes the learner independent but the teachers' role will be minimized".

It is clear that some misunderstanding emerged. For example, they over-emphasized the importance of using technology at the expense of other skills. Therefore, their practice may tend to this skill more than others. This may create a state of disequilibrium in integrating the skills. Furthermore, digital literacy is wider than use of computers. It encompasses a lot of competencies and ethics that teachers and learners should acquire. They also doubt the learners' abilities to develop creativity. Most of them appear not to have a clear understanding of the skills. In addition, their view to creativity and self-directedness may lead to problems in teaching. With all, it was clearly shown in the journals that the participants share their common perception that focusing on the skills is evidently valuable. They all believed that having these skills does enrich the class environment.

In the second theme, it was found that teachers' implementation of the activities were limited due to several reasons. They expressed their willingness to develop the skills. In the qualitative data, it was determined that the teachers give concern to using technology in their teaching practices. The findings are logical because advances in ICT have changed the way people work and acquire knowledge, with the result that the incorporation of technology into the teaching environment has become an indispensable and quintessential tool for 21st century teaching and learning. Through their reflections, it has become clear that they avoid activities that take a long time, need materials, or may cause disorder or noise. That is why some activities

were not favored due to large size classes, the limited time and the curriculum plan. All these factors act as constraints that limit the teacher's use of certain activities.

P4 wrote "Under these circumstances, one cannot achieve the dream of acquiring the skills". The use of the word "dreams" implies that the task is not easy and that the challenges are greater than their abilities to adapt. For example, to develop communication, the teacher has to divide students into groups, ask them to work in groups, monitor these groups just to make sure that they work together and communicate in English and praise them when they come up with an innovative idea. The participants state there is low engagement in creativity activities because of lack of vocabulary, materials and motivation to interact in English. Even if they are interested, the context and English level prevent them to share their ideas.

With regard to appropriateness of the environment for developing the skills, the teachers referred to their need for more training and more support. P7 wrote" we have been trained in some skills such as the use of technology but not all of them" The excerpts indicate that some training sessions provided her with apps and websites that enabled her to activate the skills of using technology. Another participant (P1) mentioned that all training programs they have attended were far from this area. This means that professional development programs either give partial or no attention to the target skills. P4 and P8 stated that they had the feelings of being unprepared to teach the skills. Nevertheless, the teachers were interested to know more about the skills. P10 mentioned "I would like to know more about them. I think they will make a difference in my teaching". Related to this finding, participants 1and 3 accentuated the importance of a transformative shift to cope with the skills. Supporting this idea, P3 wrote" the skills need a new teacher to be qualified, a new class to be established and a new curriculum to be designed". In this way, the teachers have identified pillars of moving toward the new skills. Also, they suggested that all teachers in this era should totally change their traditional viewpoints about the role of teachers as the only source of knowledge and information. P8 wrote. " Now, students should be willing to find the knowledge since there are plenty of resources out there".

On the other hand, P4 declared that the teacher is still the backbone of the process and students do not have enough experience to control their learning. This gives support to the quantitative result that respondents to the questionnaire considered self-directedness as fairly

important. The existing state appealed to most of them as the comfort zone. This anticipated resistance to the deeply rooted conception that the teacher is the source of authority and knowledge requires efforts on the part of trainers. P5 declared "I don't like to let my students depend on social media to enhance their language. I doubt the sources". This underlines the students' need to weigh resources and make reasonable choices which are themselves 21st century skills. If the teachers are not persuaded that the skills of this century demand new roles and responsibilities, reform will be impossible. The knowledge provider model should be replaced by the facilitator open minded one.

Some teachers are neutral about the skills (30%). They neither show enthusiasm toward training nor changing. These teachers need to feel the urgent need to revolutionize language teaching for developing the skills. Some teachers believe that their job is merely teaching English including vocabulary and grammar in their classes. They add that they cannot incorporate such skills because they believe that their students will be overwhelmed at the expense of language learning. These are some samples of what the teachers wrote in their journals. P3 wrote "Schooling is thereby driven exclusively by the need to score high grades in national examinations which determine access to university places". Some teachers had unpleasant experience related to the skills. P7 mentioned "When I asked students to write creatively, the supervisor accused me of wasting time and teaching something out of the curriculum. Since that time, I only adhere to the content". This adds educational policy as one more constraint.

Teachers added that students themselves may become a barrier. They stated that they had to struggle with students' reluctance to take part especially in collaborative communicative activities. Additionally, student expectation of lecture format instruction as well as student resistance to active learning can hinder the skills integration.

Discussion of results:

As the results indicate, EFL teachers positively perceived 21st century skills. The importance degree was either very high (communication, digital literacy) or high (critical thinking and collaboration). Only creativity and self-directedness received a medium degree of importance. The teachers' perception that communication is the most important skill may be attributed to the teachers' conception that language is a means of communication and the language learner is expected to have good communication skills especially with the current rapidly media-saturated environments. Studies conducted by Joynes et al. (2019); Siregar et al. (2020);

Makhmudov (2020); Hardiman (2020); Alzahrani and Nor (2022) and Ghand (2022) go in parallel with this finding. According to Prasetyo et al. (2021), students prepared for twenty-first-century life must be able to work through complex interdependencies, synthesizing from many varied sources. They should learn from experience and be able to make productive connections between theory and practice. According to the responses, communication has no longer been just reading and writing. The results in this way reflect their new vision to communication in light of the current age demands.

In this regard, Kharboush (2021) states that significant educational reforms being made in Egypt by the Ministry of Education have emphasized the use of technology as an important instructional tool within schools nationwide across the country. The aim of this reform is the efficient usage of technology tools in both teaching and learning processes. The illiterate person in this century is the one who cannot use technological tools effectively. That is why digital literacy has a priority when compared to other skills. The digital literacy skill may facilitate communication through various means. In this way, these two skills are interrelated and are among the most essential requirements expected from today's learners and teachers. This is consistent with the findings of the study by Siregar et al. (2020). However, there are also studies in the literature that contradict findings of the present research. For example, Otlu (2020) found that EFL teachers gave the least importance to local connection skills. In a similar vein, Ghamrawi et al. (2017) unveiled that Lebanese secondary school teachers' one of the most infrequently addressed 21st century skills was local connections. This contradiction is owing to contextual differences that should be considered.

As for the critical thinking skill, the result may be attributed to the inclusion of the skill in the curriculum as a main outcome and the teachers' feeling of its utility to the language learner. Processes like reasoning, drawing conclusions, and making judgments are essential for language learning especially with the information explosion nowadays. Similarly, collaboration is rated as a highly important skill because this skill provides an appropriate context for language learning. Through collaborative work, learners communicate, share information, and set common goals for accomplishing a task. This result is in consistency with what is asserted by Idrizi (2023). According to the researcher, reading and writing are not sufficient for today's world. Students shall also become good critical thinkers, skillful communicators, creative individuals, and good collaborators.

Lack of understanding may be a possible reason for the results related to creativity and self-directedness.

In section two where the teachers responded to items representing each skill, the analysis gave similar results. For example, in the items representing the skills, 82% of the teachers strongly agreed or agreed with item 9 stating that critical thinking helps learners examine and weigh alternative points of view and sources of information and only 4.5% disagreed. This means that they are aware of the role of critical thinking skills to meet the needs of the current age. Agreement was noticeable in items stating that the language learner should be a critical thinker and the digitalized age has made the skill urgently needed. The bond between critical thinking, digital literacy and language learning has become obvious.

As for the collaboration skill, the respondents believe that the skill in general is crucial because language learning needs a social context in many ways. The social context provides a room for practice, experimenting language and developing further aspects of language learning such as pragmatics and body language. However, item number 22 stating that the digitalized age has made collaboration a must got disagreement of less than half of the respondents. This implies their view that collaboration is still a situation where learners physically interact in the same place. Therefore, teachers should be trained to modify this misconception. Ubiquitous technological communication tools facilitate collaboration anywhere and anytime. In broad terms, the participants' responses extend from very important to moderately important. This means that the teachers admit the importance of these skills but in various degrees.

Although the total mean of the teachers' perceptions refers to a high degree of importance, self-directedness and creativity had a medium degree of importance. In the section of practices, these skills were at the medium level. According to Puccio, Burnett and Acar (2020), creativity and innovation skills have consistently been identified as a driving force in 21st century economic and educational development. Similar to this finding, Al-Qahtani (2016) found that little effort is exerted by EFL teachers to foster creativity. This finding matches with Ustadzah's (2019) research underlining that the environment and student behaviors constitute a real challenge resulting in ELT classroom management experienced in the teaching context. Idrizi (2023) calls for encompassing the four Cs in order to prepare students for success and better academic performance. In the creativity skill, more than 64% of the respondents strongly agree and agree that

creativity means generating new solutions. This means that more than half of them make creativity limited to this area. Less than third of them have a neutral stance of the item stating that creativity is genetically rooted. This limited knowledge of the skill makes them doubt its utility in the language classroom.

A possible explanation is that the training programs may pay little attention to these skills as long as they are not formally assessed. In item 22, the teachers mostly agreed that creativity can be developed. This reflects their readiness to develop the skill if provided by support. According to findings of the study conducted by Alshraideh (2021), some teachers believed that creativity cannot always be acquired but it is a natural talent that many people lack. Some arguments are in favor of the idea that skills like innovation and creativity are meant to exist by the person's nature and cannot be developed. Another point to be considered is that the acquisition process of these competencies is a dynamic one through which these skills evolve and develop gradually by time and by involving in the practical field. Unfortunately, the teachers' practices of developing creativity are limited. Only 20% of the participants develop this skill on a daily basis. This may be attributed to the ambiguous nature of the skill and inclusion in other skills like problem solving.

As for teaching practices, they could not clearly reflect the teachers' positive perceptions of the skills. In the study conducted by Alshraideh (2021), it was found that the two dimensions that got the highest level of activation were collaboration and communication. In the current study, they were critical thinking and collaboration. The most frequently implemented activity in critical thinking was drawing conclusions. This may be attributed to the high frequency of using this activity in teaching reading. With all, critical thinking is not heavily practiced in the language classroom on a daily basis. Collaboration is reported as a highly practiced skill due to the teachers' awareness that working in teams can contribute to better language learning outcomes.

Using technology as a tool for searching for, organizing and evaluating information got the highest mean score in the digital literacy skill. However, the findings reveal that the teachers' teaching practices integrating the skill are still limited, though it was perceived before as one of the most important skills in this century. Relatedly, Bolat (2022) found that teachers integrate 21st century skills approximately once or three times a month into their teaching practices. This signifies that certain constraints hinder the process of developing this urgently needed skill. As for self-directedness,

approximately 45% of the teachers never, rarely and sometimes develop this skill. In both perceptions and practices, the teachers view this skill as a moderately important skill and the practices developing it are employed unsatisfactorily. It is of a complex metacognitive nature since it enables the learner to plan for, monitor and self-evaluate progress. The skill, according to the teachers' points of view, may threaten the teachers' dominant personality. They believe that the skill trains students to be self-independent at the expense of the role of dominant teacher. The results come in consistent with the qualitative findings. Contrary to this finding, Gebremedhin and Fenta (2015) found that more than 75% of teachers in Adwa College of Teacher Education in Ethiopia are unable to use slide projector as instructional tool in teaching-learning process. This signifies that developing these skills requires a proper atmosphere where teachers are well qualified, the resources are available and the whole system provides sufficient support.

Based on the findings, there is a misalignment between the educational policy and teachers' current teaching practices due to some practical reasons. Whereas the educational system supports the integration of 21st century skills into lessons, teachers do not devote enough time or attention promoting these skills effectively. Statistically, the mean scores of the teachers' perception are comparatively higher than the means of implementing the same skills. For example, whereas the teachers demonstrate a stronger inclination toward working in pairs or groups to accomplish tasks, suggesting a high comfort level with collaborative communication, they seem to have difficulties implementing its activities.

The findings show that though EFL teachers are aware of the importance of these skills due to the increasingly changing world, they are neither qualified nor supported for the task of developing them. This underlines the state of contradiction between perceptions and practices. They admitted that there is a lack in in-service training on 21st century skills and the curriculum is not adequate to highlight these skills. Seliem et al. (2019) indicate that the participating teachers have some but inadequate knowledge about critical thinking. Trejo and Galindo (2022) state that teachers' knowledge of thinking skills still needs to be expanded. In this regard, to raise the awareness of teachers and increase the integration of these skills, in-service training should be provided. Their reflective journals unveil that they view that teachers who receive training on 21st century skills can infuse these skills more. This goes in line with the study findings by Hardiman

(2020), Anderson (2020) and Ghand's (2022). It is promising that teachers have positive perceptions towards the development of 21st century skills. This can act as an enabling factor that influences the successful integration of the skills in the EFL class. Therefore, teachers with positive perceptions are more likely to foster the development of 21st century skills.

Additionally, the defect in EFL teachers' performance is because teachers are trained to consume knowledge, not produce creative ideas and solutions. However, as stated by Suryono and Gupta (2021), the implementation of knowledge-based learning is still dominated by the educational institutions. This means that developing 21st century skills has received very little attention. Many EFL teachers only focus on teaching methods such as reading, copying, completing exercises, and vocabulary learning. They tend to avoid innovative activities, rarely assign projects or use new materials, and students often have the mindset of merely finishing their studies. Implementing new teaching strategies, such as task-based and project-based learning, can offer students more opportunities to interact with their peers, locate resources independently, and communicate with others. Many studies have consistently found that deep approaches to learning can optimise students' abilities to reason things out, develop higher-order thinking, and foster self-directed and life-long learning. These approaches necessitate that the learners are active participants. Therefore, many researchers such as Pardede (2020), Paschal and Gougou (2022), Mahona and Pacho (2022) call for reforming language teaching to cope with the skills.

Considering the above-mentioned barriers, several possible solutions can be suggested. First, teachers argue that the skills and their activities should be an integral part of the syllabus and should not be viewed only as supplementary. Teaching hours should be increased so that there is enough time to integrate such skills in the lessons. Hopefully, in the next few years, a state of 'normalization' will be reached in which ICTs will be successfully integrated in EFL teaching and viewed as a normal part of teaching practice. Aiming at this goal, teacher education events designed effectively for this purpose should be organized and teachers should cater for their continuous personal and professional development.

In this way, our findings comply with the literature that clarifies that both pre-service and in-service programs need to be revised in terms of developing the 21st century skills among teachers and then among students. Higher education institutions especially faculties of

education need to focus on 21st century skills as prerequisites for work and success. As stated by Yeni (2018), 21st century skills training starts with teacher preparation programs. When teachers are prepared to work with the changing needs of today's students with the help of 21st century skills, there is only one thing left; bringing these skills into the classroom.

PDPs designers should incorporate all dimensions of 21st century skills integratively. Çınar (2021) claimed that every component of 21st century skills become a requirement for English language instruction in order to promote students' requirements and learning differences. In the same vein, Alamri (2020), Prasetyo et al. (2021), Garcia (2021) and Kharboush (2021) point out that EFL teachers' preparation and their professional development are expected to perform according to new and changing standards. Apart from lack of training, shortage of time, insufficiency in resources and the overloaded schedule can be other sources of challenge as revealed in the journals. The teachers rated the activities that are feasible as more frequently used than the activities that need a special infrastructure, time, or a limited number of learners. Examining information deeply, detecting fallacies and comparing different sources are examples of this type. In Tsourapa's (2018) study, teachers indicate time pressure due to course book overload and classroom management issues as restricting factors.

Regarding the demographic characteristics, the latent null hypotheses were rejected. The gender could make a difference in the teachers' perceptions. The results show that male teachers are better perceivers of digital literacy and collaboration, whereas female teachers perceived communication and creativity better. No differences are found in self-directedness and critical thinking. Male teachers may be better in controlling collaborative activities due to their dominance and tendency to impose order. In addition, male teachers are more interested in developing digital literacy. That's why their perceptions concerning the utility of this skill have higher mean scores. Both groups agree that critical thinking is a desirable outcome recently included in the curriculum. As for self-directedness, teachers in general lack knowledge related to this skill. As a result, no difference was found between the two groups. According to a study by Bal and Karademir (2013), it was concluded that male teachers are more likely to use technology in their lessons than female teachers. This result is consistent with results of the study conducted by Solak and Çakır (2014), Seraj et al., (2021) and Bolat (2022). On the other hand, the

findings are contradictory with some other studies. Kozikoğlu and Babacan (2019) concluded that Turkish EFL teachers' attitudes towards technology do not differ significantly according to gender, while the male teachers have a higher level of TPACK skills than the female teachers. The differences in the results may be attributed to distribution of the participants based on gender.

According to years of experience, teachers with less experience have the highest mean scores. This implies that more experienced teachers may have resistance, whereas the teachers with less experience have more enthusiasm concerning these skills. Another possible explanation is that the training programs they receive could not include these skills successfully. Consistent with our findings, it was found that teachers with low professional experience had higher TPACK performances (Lee & Tsai, 2010) and apply these skills more than teachers with more professional experience (Bolat, 2022). Though EL teachers had a positive perception about the pedagogical use of technology in language classes in Korkmazgil's (2015) study, less experienced teachers felt more comfortable with technology. It was also found that English teachers with higher years of experience reported more problems with using technology in the classroom. Also, teachers with less years of experience gave more place to some skills than teachers with more years of experience.

Contrary to these results, Shahin and Han (2020) found that teaching experiences and working school environment factors had no relationship to the attitudes of EL teachers towards 21st century skills. Similarly, Kaçar (2020) and Otlu (2020) found that teachers' years of experience did not show a significant difference in the use of 21st century skills. This means that some contextual circumstances may control this matter. At this point, it is advisable that teachers with less years of experience and more years of experience should collaborate on how these skills can be infused in classrooms, and also teachers with more years of experience should update their knowledge and teaching practices through professional developments. This illustrates how valuable training is in integrating 21st century skills into lessons.

As for the school type, it was found that the private schools group outperforms the public school one in the total mean and means of the six dimensions. This highlights that more constraints are found in the public school environment compared to the private one. The constraints may include infrastructure, training, and the financial resources. Such factors can create a difference in the teachers'

perceptions of the skills. This is supported in the literature as in the study conducted by Bolat and Gençoğlu (2024).

Conclusion: The findings of the current research illustrate that in-service teachers require special training devoted to raising their awareness of the significance of integrating 21st century skills in EFL classes and refining their practices at those classes. Although the respondents revealed high degrees of perception of the sample skills, they uncovered critical threats to their ambitions to help young learners acquire those skills adequately. Efforts to implement the 21st century skills are limited to the transfer of knowledge and developing the traditional four language skills. Therefore, it can be recommended that development of these skills should be prioritized by all educational institutions especially the secondary schools. EFL curriculum elements should be directed toward developing 21st century skills. Furthermore, differences in demographics revealed in this study should be put into consideration in planning future in-service training programs for EFL teachers who want to integrate 21st century skills in language classes properly. Furthermore, the school environment should become appropriate to develop the skills including sufficient time, materials, technological infrastructure, internet connection and acceptable class size.

Suggestions for Further Studies:

- A proposed framework for 21st century skills in language programs.
- A suggested strategy for integrating 21st century skills in EFL primary school classes.
- A competency-based training program for in-service EFL teachers to integrate 21st century skills in language classes.
- A review of integrating the 4 Cs in Egyptian EFL textbooks.
- A project-based program for prospective EFL teachers for integrating 21st century skills in language classes.

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