

The Implementation of 21st-Century Skills- Barriers and Instructor Views

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ABSTRACT

The implementation of 21st-century skills in EFL settings is essential, considering their transferability into real-life settings. However, research indicates that there are barriers to implementing these skills within educational systems, including the inadequacy of teacher training and digital tools, as well as the challenge of transitioning to student-centered pedagogies. Therefore, this study aims to identify the obstacles to implementing 21st-century skills in tertiary-level EFL settings in Türkiye. An online pilot survey, adapted from the UNESCO Bangkok Office's (2016) work on transversal competencies, was conducted at a foundation university's school of foreign languages in Istanbul, Türkiye. The participants (n = 18) were selected using convenience sampling for this quantitative study. According to the findings, implementing these skills in classroom practices may be challenging due to the emphasis on academic achievement, the lack of clarity in defining 21st-century skills, the absence of practical guidance, and insufficient community awareness. Most of the participants (n = 13) stated that schools should be the primary source for students to acquire these skills and that they have sufficient training to help their students do so, although the modality of the training could be modified. While the participants claim to possess the necessary knowledge about technology use, they lack awareness of ICT literacy as a 21st-century skill. In light of the findings, the content they need to cover may be reduced, allowing them to allocate more time and effort to implementing 21st-century skills into classroom practices. In addition, the curriculum designers should increase the intensity of instructor-guided group and individual projects to ensure the implementation and acquisition of 21st-century skills.

Keywords: EFL, Tertiary-Level, 21st-Century Skills, Implementational Barriers, Instructor Views

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The world is evolving into a place where there are no boundaries, thanks to advancements in technology and the modernizing effects of globalization. Everything is only one click away, and on a planet with no limits, as educators, we need to transcend boundaries and remove limitations in the education field as well. That is, teaching should not be limited to imparting subject knowledge; we must educate our students according to the necessities of the modern world and prepare them to meet the requirements of the 21st century, so that they are able to tackle both work and life problems they will face upon graduation.

To effectively implement 21st-century skills in educational settings, it is essential to understand the definitions of these skills and their scope, as described in the P21 Framework ([The Partnership for 21st Century Learning, 2019](#)). As teachers of one of the core subjects stated in the framework, English, we need to be aware of the effects of these skills on our assessment systems, curriculum designs, and consequently, our professional development, the environment, and the whole world. Research indicates gaps between what is acknowledged and what is done in EFL classrooms; it is essential to address the needs of the field that are highlighted and fill in these gaps by understanding what needs to be done at institutional and instructional levels.

Literature Review

To begin with, it is essential to note that instructors generally have a solid understanding of 21st-century skills and are willing to implement them in their classrooms. According to research, however, they face challenges in applying these skills. As stated by [Tümen Akyıldız and Şahin \(2024\)](#), there is an immense difference in the application of 21st-century skills comparing private and public schools, considering the vast range of resources private schools have such as digital tools and more lesson hours. This does not mean that private school instructors do not face challenges, as students may still struggle to adapt to a more student-centered and unconventional style of language learning. Although the Turkish EFL instructors could not agree on a teaching methodology that integrates technological tools and devices, [Kafes and Bilben \(2024\)](#) stated that they demonstrated a certain level of understanding of 21st-century skills. Similarly, [Alharbi \(2024\)](#) stated that, despite the willingness of instructors in Saudi Arabia, implementing 21st-century skills can be a challenge due to issues faced in student engagement, especially in larger classes, and the difficulty of assessing these skills with current and conventional assessment tools. On the other hand, some Malaysian instructors, according to [Muhamad and Seng \(2022\)](#), focus only on certain aspects of the aforementioned skills and prioritize them, such as ICT literacy, while overlooking others, such as problem-solving.

Another major challenge in implementing 21st-century skills in tertiary-level EFL classrooms is the curricula used and the instructors' lack of autonomy and flexibility in the lesson design process. The use of outdated teacher-centered materials and methodologies ([Monib, 2023](#)) hinders the implementation of skills, which in turn adversely affects the development of critical thinking skills and learner autonomy. Another issue raised by [Septiyanti and Fairiah \(2021\)](#) is the difficulty of designing curricula to meet the diverse needs of students, including different levels and types of motivation, and the limited resources that cannot help fulfill these needs. Not only is diversity an issue when it comes to students, but it is also a vital component of lesson design, considering

culture as a variable. [Salehi \(2019\)](#) stated that critical thinking is not given enough importance by some instructors in Libya, as it is seen as irrelevant in language classrooms. [Ekinci \(2019\)](#) examined the cultural issue from an assessment perspective, stating that the emphasis on exam preparation processes makes modern, student-centered teaching methodologies difficult to implement in Turkish EFL contexts.

Clearly, not all instructors possess the knowledge regarding the scope of 21st-century skills and their potential implementation in EFL classrooms. Regardless of how eager they are to integrate them into their EFL contexts, instructors need support and assistance in developing and equipping themselves with the knowledge of both the scope and the implementation of 21st-century skills ([Mehdaoui & Benabed, 2022](#)). According to [Eker Uka and Bedir \(2023\)](#), instructors lack professional development opportunities and the necessary training in relevant, student-centered teaching methodologies, which prevents them from implementing 21st-century skills into their classrooms.

To conclude, although instructors demonstrate a clear understanding of 21st-century skills and a willingness to implement them in their EFL teaching contexts, they may still face infrastructural challenges in doing so. Those who lack knowledge should be provided with the support they need to grow professionally, so that they are well-equipped and capable of realizing the future benefits of integrating these skills. It is only possible to achieve the desired student outcomes if all stakeholders are willing to overcome challenges by investing in teacher training and professional development opportunities, as well as developing strategies that are appropriate and respectful of the cultural values in specific contexts.

Method

Participants

The participants of this study were instructors at a foundation university's preparatory school (n = 18). The sample consisted of 72.2% female and 27.8% male participants, who were selected through convenience sampling. 44.4% of the participants reported having completed their master's degree, 44.5% were BA graduates, and 11.1% had completed their PhD, indicating a high level of academic engagement among the instructors of this institution. When it comes to teaching experience, the participants showed a varying distribution, with most working as teachers for 1-3 years (38.9%), indicating a combination of newly graduated teachers and more experienced ones. This indicates that instructors at this institution have the advantage of integrating both the positive, refined outcomes of experience and the most up-to-date teaching pedagogies into their teaching practices. Half of them were new in their positions; 27.8% were in the same institution between 1-3 years, 16.7% were there for more than 11 years, and one of the participants was there for 7-10 years, showing a low turnover rate and consequently, implying a dedication to institution and willingness to contribute to the school culture and values, also possible job satisfaction.

Instrument

The online survey used for this quantitative pilot study was adapted from the [UNESCO Bangkok Office's \(2016\)](#) study on transversal competencies. It consisted of multiple-choice questions on

the demographics of the participants; multiple-choice and checkbox-type questions about their curricular activities aside from lessons; questions related to the curriculum they need to cover; their understanding of 21st-century skills, as well as 21st-century skills assessment; and application questions to have a grasp of how they are trained to implement 21st-century skills in their classes, what makes it difficult to implement these skills, and how their institution perceives 21st-century skills. One additional question was added to the end of the survey to determine whether participants had any further comments on the research topic.

Data Collection and Analysis

The survey was conducted on Google Forms for the convenience of the participants. The link to the survey was shared with the participants through their school's WhatsApp group. They are asked to complete the survey when they are free so that they are motivated to complete the survey, and they are in a relaxed, stress-free environment. After the data collection process, descriptive statistics were run on the dataset.

Research Questions

- I. What are the main barriers to implementing 21st-century skills in tertiary-level EFL classrooms in Türkiye?
- II. How do EFL instructors perceive and understand 21st-century skills, and how does this understanding reflect in their classroom practices?
- III. To what extent do current curriculum designs and assessment systems support the integration of 21st-century skills in higher education EFL contexts?
- IV. What types of professional development and institutional support are needed to bridge the gap between theoretical knowledge and practical application?

Results

The participants stated that they would teach students with different English proficiency levels, varying from CEFR A2 to B2. Many instructors, but not all, teach more than one level at the same time. 67% of the instructors reported to teach A2 level students. 50% stated that they conducted lessons with B1 level students. Instructors who had lessons with B1+ level students were 61% of the total number of participants. Last but not least, 56% of the participants stated they have lessons with students whose English proficiency level is CEFR B2.

Half of the instructors reported that they taught for more than 20 lesson hours a week. 27.8% reported having between 16 and 20 hours of teaching, and the rest of the instructors stated that they had between 1 and 15 hours of teaching weekly. The reason for the lesson hour distribution might be the instructors' full-time or part-time teaching status, institutional seniority, or the managerial tasks they have in commissions or units within the institution.

The instructors were also asked how many hours every week they spent on classroom preparation, extracurricular activities, administrative tasks, professional development, peer support, and other tasks they should tackle in addition to classroom teaching. 11 instructors stated that they spent less than an hour for classroom preparation; 5 spent 1-3 hours, and two instructors

spent 4-6 hours to prepare for their upcoming lessons for the week. When it comes to extracurricular activities, nine instructors spent less than an hour a week and one instructor spent more than six hours. Except for three instructors, all stated that they had to spend varying amounts of time on the administrative and managerial tasks assigned to them. Additionally, all instructors reported allocating a significant amount of time to their professional development to stay current with innovations in the field, enabling them to update their teaching methodologies. Most of the participants (n = 13) spent 0-3 hours providing peer support, whether to seek help or offer it to their colleagues.

The curriculum-related questions asked of the participants in the survey were whether they were able to cover the content prepared or planned by the curriculum commission as planned, how they felt about the curriculum, and whether they believed it required any changes be able to cover the content on time. 61.1% of the participants stated that they were very much able to cover it according to the planning and pacing, while 38.9% of them were only able to do so to some extent. Regardless of the level at which they teach, the reasons given for the incidents where they could not cover the content were that the content was too voluminous and students needed more individual attention. Sixty-five percent of the participants were satisfied with the difficulty level of the content, its appropriateness for the proficiency level of their students, and the availability of teaching and learning materials for their convenience. The same percentage of participants reported having no difficulty researching new teaching techniques and materials regarding the time they should allocate to it. In addition, 55% of the instructors who reported that time constraints mentioned that they were not an obstacle to lesson preparation processes.

The first question regarding 21st-century skills consisted of 17 skills and asked instructors to indicate their familiarity with them, as well as whether they recognized these skills as 21st-century skills or not. Critical thinking and problem-solving were the skills recognized by all participants. Creativity and collaboration followed them with 94.4% of the participants. On average, 83.3% of the participants were aware that communication, flexibility, adaptability, leadership, and responsibility were among the skills recognized as 21st-century skills. 75% marked media literacy, initiative, and self-direction, social and cross-cultural skills, innovation, and productivity as a part of the skill set. However, there were some skills that were not known to be a part of the 21st-century skills by this specific group of instructors. 44.4% of the instructors did not recognize or were not familiar with information literacy and accountability. More surprisingly, only 38.9% reported being familiar with ICT literacy as a 21st-century skill.

The next question in the survey was designed to determine whether a specific set of skills and competencies aligned with the institution's identified lesson objectives. Almost all instructors agreed that the objectives of their lessons were to help students understand the content, analyze information critically, build and present their own opinions logically, discuss the given topic in a constructive manner, collaborate with other students, and develop innovative ideas.

When it comes to helping students develop 21st-century skills, the most effective way to do so is to conduct group projects and presentations. In addition to collaborative tasks and projects, lectures by teachers, small-group discussions, and individual projects and presentations were

considered vital by 85% of the participants in terms of skill development. Computer-aided activities, extracurricular activities, and field studies were seen as less effective activities than collaborative activities and teacher-led discussions in 21st-century skills development endeavors.

The next section of the survey consisted of two questions that aimed to determine the assessment methods used in the institution and their effectiveness in assessing students' development of 21st-century skills. 38.9% of the participants reported that there were official guidelines and standards to assess students in 21st-century skills, while 44.4% stated there were unofficial guidelines for the same purpose. 16.7% of the instructors reporting mentioned the standardized tests to determine the personality types of the students. Lastly, eight participants stated that there were no specific assessment tools or methods available for evaluating the development of 21st-century skills. Fifty percent reported that the assessment system used was appropriate to some extent for measuring 21st-century skills. 11.1% of the participants were unsure whether the assessment system was appropriate for measuring 21st-century skills. 38.9% showed little to no acknowledgment or recognition of their current assessment methods being appropriate or not.

Apart from demographics, the participants were asked about their teaching experience in general and within institutions, their understanding of 21st-century skills, the content and importance of the curriculum, student motivation, and assessment processes. They were also asked about other factors affecting the implementation and integration of 21st-century skills into EFL classrooms. Most of the instructors stated that school leadership had a very little impact on this decision, while others believed that it was either to some extent or a very significant part of the process. 85% of the instructors reported that the most crucial influence is that of the instructors themselves and their willingness, dedication, and commitment to the integration process. Students' interest was chosen as the second most popular answer by half of the participants. One-third of the participants mentioned parents' involvement and support during the process was another major influence on the teaching of 21st-century skills in their institution. Additionally, one-third of them reported the importance of the support that would come from local businesses, considering the cultural factors and community's impact on education.

When the factors that pose a challenge to the implementation of 21st-century skills in tertiary-level EFL classrooms were listed, 50% of the participants mentioned that, to some extent, they lacked practical guidance. That is, the instructors stated that, regardless of their willingness to do so, they did not have the necessary assistance in integrating these skills into their teaching contexts. In addition to that, 66% mentioned that academic achievement was emphasized more and more importance attached to exam scores than to the acquisition of 21st-century skills. They were mostly confident in defining these skills; however, according to the participants, the parents' awareness was not adequate. Lastly, 38% believed that the effect of lack of materials or IT facilities in the implementation of 21st-century skills was very little.

To understand the instructors' perspectives on the 21st-century skills framework and their perceptions regarding the integration of these skills into the Turkish educational system, they were asked to rate on a Likert scale to what extent they agreed with certain statements. When asked a relatively general opinion question, 80% of the participants agreed that the implementation of 21st-

century skills should be included in school policies as a formal component, considering the skills students need to acquire before completing their academic life. Additionally, they stated that more responsibility falls on the schools' shoulders rather than the families' as the primary source of teaching 21st-century skills. More context-specific statements, however, did not receive the same levels of agreement. When asked about the importance attached to 21st-century skills in their institution, only 35% of the participants stated that these skills were given sufficient attention, albeit to some extent. The rest of the participants reported that 21st-century skills were either given very little attention or were not prioritized at all. Similarly, they mentioned that students' opportunities to access the necessary information regarding these skills were very limited, or they had limited possibilities.

The last part of the survey, preceding the open-ended question for qualitative data collection, inquired about the professional development and training opportunities available to instructors at their institution. There were questions about the modality of training they received and the modality of training they thought was useful and effective in general. Additionally, they inquired whether they had received any training to improve classroom management and whether they felt they had received sufficient training regarding the implementation of 21st-century skills in their classrooms.

The first question they answered was to determine the frequency of training they received to improve their classroom management so as to integrate 21st-century skills into their teaching practices. 33.3% of the participants reported receiving training for the abovementioned purpose 1-2 times per semester. 33.3% reported that they had the relevant types of training more than three and 1-2 times per academic year, while the rest mentioned not receiving training on their improvement of classroom management skills at all. When it comes to whether they felt they had received sufficient training regarding the classroom integration of 21st-century skills, 72.2% of the participants stated that, to some extent, they had received the necessary professional development opportunities to teach these skills. While two participants reported having a good amount of training on the subject matter, another two mentioned not having them at all.

The next item in the questionnaire aimed to determine the modality of training they received. The options given were lectures by specialists, a model classroom, mentoring, discussions with colleagues, guidelines and material distribution, online learning, and none of the above. 85% of the participants reported receiving training through lectures delivered by subject matter specialists and discussion sessions conducted with their colleagues. The next modalities of training were online learning channels and opportunities as well as guidelines and materials distributed within their institution, as stated by 56% of the participants. Mentoring by 45% and model classrooms by 28% followed these training modalities, while one participant reported having no training at all, and another stated that they did not know if they had received any training.

As mentioned above, the participants were also asked to rate which types of training they found most effective. They were not asked to rank the modalities but to evaluate each item in the question within itself. Discussion with colleagues was the most popular modality chosen by the majority of the instructors, which is 70% of them. Model classrooms and mentoring practices and programs

followed by 50%. Forty percent of the participants thought that lectures delivered by specialists were very useful and effective. The only modality of training that was marked by 18% as not effective at all was mentoring practices and programs within the institution. Lastly, guidelines and materials prepared and distributed by the commissions of the institution were found to be somewhat effective.

The last item in the questionnaire was an open-ended question asking for feedback, suggestions, or comments from the instructors. Out of 18 participants, five chose to share their opinions regarding the study and their ideas on the implementation of 21st-century skills in Turkish tertiary-level EFL classrooms. They stated that it is an immensely effortful task to try and implement 21st-century skills into any educational context. It requires a significant amount of time and skill development on both the teachers' and students' sides. It is vital to plan each curricular, co-curricular, and extracurricular activity meticulously so that students are exposed to the principles of the framework at every step of their academic career. It may not be very easy for students to grasp the importance of acquiring 21st-century skills for their future at first; however, with consistent exposure to carefully designed curricula, with the effort of the stakeholders in the system, the collaboration of experienced and younger teachers, and the cooperation, involvement, and support of the parents, it is possible to have meaningful student outcomes, which would encourage them to do even more to acquire these skills.

Discussion

The results of the survey applied for this pilot study showed the understandings and perceptions of the instructors regarding the scope of the 21st-century skills framework, the obstacles they come across as they consider adopting the principles of the framework or as they do so, and the benefits of implementing 21st-century skills into their tertiary-level EFL classrooms. According to the results and findings, it can be noted that instructors experience both institutional and instructional challenges in the process.

In the Turkish educational context, the research underlines the "lack of technological equipment in classrooms", as well as inadequate assistance in terms of software, which creates an obstacle in the implementation of digital tools (Önalán & Kurt, 2020) and enhancing the digital, media, and ICT literacy with the integration of 21st-century skills into EFL contexts. Although the instructors are eager to embed the skills in their classrooms, they may not be able to diversify their teaching practices and utilize the necessary tools to make their teaching more engaging, collaborative, and communicative due to the aforementioned lack of resources. In contrast to the limited resources issue faced by many institutions, particularly public schools, compared to private ones, the results of this pilot study revealed no such difficulty in accessing technological tools or devices. That is, the types of constraints they faced were varied, rather than a lack of equipment. The instructors at this foundation university rather expressed that the syllabi and the curricula being packed caused issues with the implementation of 21st-century skills. Since the materials they had to cover during the academic year left little room for flexibility, they struggled with adopting a more student-centered approach. This finding is consistent with related research. Koşar-Altınyelken and Akkaymak (2012) emphasized the pattern of teachers being unable to organize group work due to

the curricula and the focus on academic achievement, as well as the traditional assessment methods used in Turkish educational contexts. Teachers with a heavy workload are restrained in terms of time and limited in their ability to be innovative in the classroom. For instance, the participants in this study highlighted that they had classes with students at varying levels of proficiency. Also, although the minimum number of lessons they had each week ranged from 1 to 5, with the managerial and administrative tasks they had, the assignments given by the units and commissions of the institution, and the co-curricular and extracurricular duties they had, their workload cannot be underestimated. It can be inferred from the data they provided that they need to tackle numerous tasks and assignments throughout the academic year or each period. The instructors were confident in reaching the most recent pedagogical methodologies and related materials for their students. However, time constraints pose a challenge in this sense. Despite having the necessary technological equipment, resources, and materials available, they may still face certain barriers when it comes to time allocation. In addition, due to the emphasis on the exam-driven nature of the Turkish education system, teachers are often left with a narrow range of activities, focusing on grammar and vocabulary rather than those that enhance critical thinking and problem-solving skills, collaboration and communication skills, and digital literacy. The emphasis on high-stakes assessment, aside, and the excessive focus on summative assessment also pose obstacles to implementing 21st-century skills in tertiary-level EFL classrooms. These skills, which require a more formative assessment modality and necessitate in-class collaboration and discussion, make them relatively more effortful and time-consuming. Last but not least, large classrooms can be a barrier, considering the students' need for more individualized motivation and attention to promote engagement and learning.

Although there are clear challenges, the majority of instructors showed an understanding of the scope of the P21 Framework and the definition of 21st-century skills. They were also able to name most of the competencies in the framework. They were aware of the importance of integrating these skills into EFL contexts and of both the short-term and long-term benefits for the students. The instructors expressed a need for more training on the practical implications and guidance in the application process. The gap between knowledge and practice implied the need for a change in the modality or content of the professional development activities designed or outsourced by the institution.

Limitations

The study, conducted on a non-random sample of 18 participants from a single university, is less generalizable due to its small size and non-random selection. The results of the study were context-bound, as all participants were employees at a foundation university; there is no data to gain insights from instructors working at public or private universities. Both the barriers and the perceived benefits of implementing 21st-century skills into tertiary-level EFL classrooms are context-specific, as well. That is, if the survey were conducted elsewhere in Türkiye or even in İstanbul, we might get different results. Data collection involved instructors self-reporting to an online questionnaire, which collected both qualitative and quantitative data, indicating that the data gathered might be biased. In other words, they might not be very objective in their answers to

questions about their understanding of 21st-century skills or their integration of these skills in their classroom contexts. Additionally, considering its cross-sectional nature, the pilot study is unable to present longitudinal results. Finally, student feedback and the perceptions of the administration and commission members of the institution may also be needed.

Conclusion

The study highlights the gap between theoretical knowledge and the practical implications and applications of implementing 21st-century skills in Turkish tertiary-level EFL classrooms. Considering the willingness of instructors to express their opinions on the subject matter, with sufficient practical guidance and necessary adjustments to the curricula, 21st-century skills can be embedded into the educational systems of higher education institutions. More flexibility and autonomy for teachers, with a reduced emphasis on current assessment modalities, could ensure a healthier application of these skills in their specific context. Formative assessment tools, such as peer review, presentations, and portfolios, which can serve as a means of self-reflection for students, can be incorporated into the institution's assessment system. Moreover, the modalities of training instructors could be revised to ensure the inclusion of more student-centered and practical teaching methodologies, aligning with the P21 Framework, so that instructors can close the gap between theory and in-class practices. For sustained development, the content of these trainings should also be revised. Feedback from instructors should be carefully evaluated to understand and address their individual professional development needs. Follow-up sessions should be scheduled after each training. If time does not allow it, online forms or group discussions where instructors share their in-class experiences regarding the integration of 21st-century skills and competencies can be utilized, allowing for the design of professional development activities that address the most recent needs of instructors. Support from other stakeholders, such as the Ministry of Education, the institution's administrators, and the students' parents, is invaluable during the implementation of 21st-century skills in Turkish tertiary-level EFL contexts. Seminars can be planned for parents to shed light on the future benefits of implementing these competencies in the educational system. New policies must be developed to ensure that 21st-century skills are already embedded in the curriculum. Similarly, considering that the integration of technological tools in the classroom is essential, infrastructure should be invested in both at an institutional and national level so that every student has an equal opportunity to receive the same quality of education throughout Türkiye.

Clearly, a more longitudinal research design is needed to gain broader insights into the subject matter. Feedback from students and instructors working at various types of institutions across Türkiye's regions may help increase the generalizability of the results and identify patterns in Türkiye's educational system. Action research can be conducted to see the differences between groups of students who have 21st-century skills instruction in their curriculum and the ones who do not receive it. Comparing long-term student outcomes could shed light on the benefits and importance of implementing 21st-century skills in EFL classrooms.

To conclude, all the stakeholders, including administrators, curriculum designers, assessment units of the institutions, teachers, teacher educators, students, and parents, should be well-informed

about 21st-century skills, the principles of the P21 Framework, and what the acquisition of these competencies mean in the long run so that they are aware of what can be done to address the challenges of the integration of them. With the collaboration and support of all these parties involved in the decision-making processes, the Turkish education system can turn into an empowering, student-centered system whose students are ready to meet the requirements of the 21st century.

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