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HACI BAYRAM VELİ ÜNİVERSİTESİ
ÇEVİRİBİLİM UYGULAMA VE
ARAŞTIRMA MERKEZİ



ABSTRACT
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İNÖED 1st INTERNATIONAL CONFERENCE

27-29 MAY 2022

“21st CENTURY CHALLENGES IN ELT”

ANKARA, TURKEY



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21st Century Challenges in English Language Teaching
27-29 May 2022, Ankara/Turkey



ANKARA
HACI BAYRAM VELİ
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AELTE 2022

21st Century Challenges in English Language Teaching

CONFERENCE PROCEEDINGS

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From the President of the Conference,

Greetings to all participants,

It is a great pleasure for me to welcome you to the AELTE 2022 Conference, organized for the first in collaboration with Ankara Hacı Bayram Veli University and U.S. Embassy.

With this conference AELTE Turkey aims to provide a platform that will bring together theory and practice in diverse fields of foreign language study. AELTE 2022 Conference is organized to provide a high quality academic platform for the communities of EFL, ESL, ELT, linguistics, literature, and translation and the related fields to promote connections between theory and practice, and explore different perspectives on the implementation of research findings into different settings.

We hope that this conference will create a friendly occasion for all to share perspectives and research findings from a wide variety of educational contexts. We also dearly value possible friendships and partnerships made and insights gained at the conference and hope they will go beyond your participation in the conference, leading to better understanding and appreciation of our profession from an international stance.

On behalf of the Organization Committee, I wish you an enjoyable stay in Ankara, Turkey.

With very best wishes,

Prof. Dr. Arif SARIÇOBAN
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English language teacher education in Turkey: Where are we and where are we heading to?

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Abstract

“21st century skills” has been circulating in the academia as a popular term, but what does it precisely imply? Originally proposed by the Partnership for 21st Century Skills (P21) (2007) and OECD (2018), the 21st century skills are the necessary skills and competencies that should be cultivated in learners demanded by the 21st century education. The skills are mainly grouped into three as learning skills (i.e. critical thinking, creativity, collaboration, and communication), literacy skills (i.e. information, media, and technology), and life skills (i.e. flexibility, leadership, initiative, productivity, and social skills). This educational shift has undoubtedly brought about certain changes in both learner and teacher roles. Teachers should now serve as more than just “knowledge workers” (Price & Weatherby, 2018) and adopt the required skills and competencies mandated by the necessities of this information and technology age. The critical question to be addressed, in this regard, is “Are teacher education curricula well-equipped to cultivate 21st century learners?” This paper therefore intends to examine the current English language teacher education program (ELTEP) in Turkey with a view to respond to this question.

Keywords: teacher education; 21st century skills; language teachers; curriculum

Introduction

Benjamin Franklin once reportedly said “Tell me and I forget. Teach me and I remember. Involve me and I learn”. But what exactly is our knowledge about effective learning after a century Franklin expressed those statements. Many scholars who have researched this topic have documented that the key to thriving learners is great teachers (Henry & Thorsen, 2018; Rosenberg & Miles, 2018). An OECD (2005) report has yielded supporting evidence that student learning is impacted by three factors broadly categorized as (i) the differences that learners bring into class, (ii) variables related to policies, teacher and teaching factors (teacher quality), and (iii) the indicators and correlates of teacher quality. Likewise, Rivkin, Hanushek, and Kain (1998) referred to teacher quality as the most significant school-related factor in student achievement. Now that the salience of teachers in learning has been established, we must next ask what teaching is.

Initially, we have to acknowledge the fact that teaching is a highly complex skill involving a deeper understanding of the subject matter and the ability to simplify complex issues (Firth, 2019). It also requires a psychological and pedagogical understanding as well as sundry management skills. Teachers should therefore be well-equipped with certain cognitive abilities and affective/motivational characteristics such as professional knowledge, general pedagogical knowledge, content knowledge, pedagogical content knowledge, motivation, self-regulation, professional beliefs about teaching, learning, and the subject content (Blömeke & Delaney, 2012). With the ever-changing needs and qualities of language learners and the advent in educational technologies, the scope and qualifications of the teaching profession also require reconsideration. Teachers of this century are now expected to be adaptive, lifelong learners, tech-savvy, collaborative, and professional advocates (Cox, 2019).

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Students of this century are digital natives associated with Generations Z (born between 1995 and 2009) and Alpha (born since 2010) who are born into technology and do not remember a life without the internet. Education of this century, on the other hand, necessitates the acquisition of certain skills, including foundational literacies (how students apply core skills to everyday tasks), competencies (how students approach complex challenges), and character qualities (how students approach their changing environment) (Partnership for 21st Century Learning, 2007). Last but not least, methodologies of this century get their share from the paradigm shift and thus include such methods as flipped learning, project-based learning, cooperative learning, gamification, problem-based learning, design thinking, thinking-based learning, and competency-based learning (Realinfluencers, 2019).

That being the case, the questions that come to mind is: How much prepared are teachers to teach in the 21st century? Do teacher education curricula require reconsideration? To this end, the present research tackles the state of ELTEP implemented in Turkish universities. It therefore conducts a thorough analysis of the program with particular reference to the 21st century skills and competences proposed by the Partnership for 21st Century Learning (2007) and World Economic Forum (2015).

Research Question

The primary research question addressed in this study in congruence with the research objective is as follows:

RQ1- Are teacher education curricula in Turkey well-equipped to cultivate 21st century learners?

Literature Review

What are 21st century skills?

The 21st century skills are characterized as “problem-solving, critical thinking, communication, collaboration, and self-management (p.1) by the National Research Council (2012), highlighting the significance of applying knowledge to new contexts rather than recalling facts, concepts, or processes. It is further concluded in the report that the development of interpersonal and intrapersonal skills enable flexibility and adaptation required for a world that is changing. A similar definition of the 21st century skills was provided in the OECD report promoting that “curiosity, imagination, resilience and self-regulation” must be employed by the 21st century learners to be cultivated “for jobs that have not yet been created, for technologies that have not yet been invented, to solve problems that have not yet been anticipated” (OECD, 2018, p.2). The 21st century skills such as interpersonal skills, higher-order cognitive abilities, and systems skills are reported as the crucial components of future employability (Bakshi et al., 2017). These skills are therefore worth probing.

The term 21st century skills was first introduced by the Partnership for 21st Century Learning (2007) who provided a framework (Figure 1) designed with teachers, education professionals, and industry leaders to describe and explain the skills and knowledge kids need to excel in work and life, as well as the support structures required for 21st century learning outcomes. The acquisition of abilities in one area necessitates the acquisition of skills in other areas, hence the skills and competences in this framework are interrelated.

Framework for 21st Century Learning

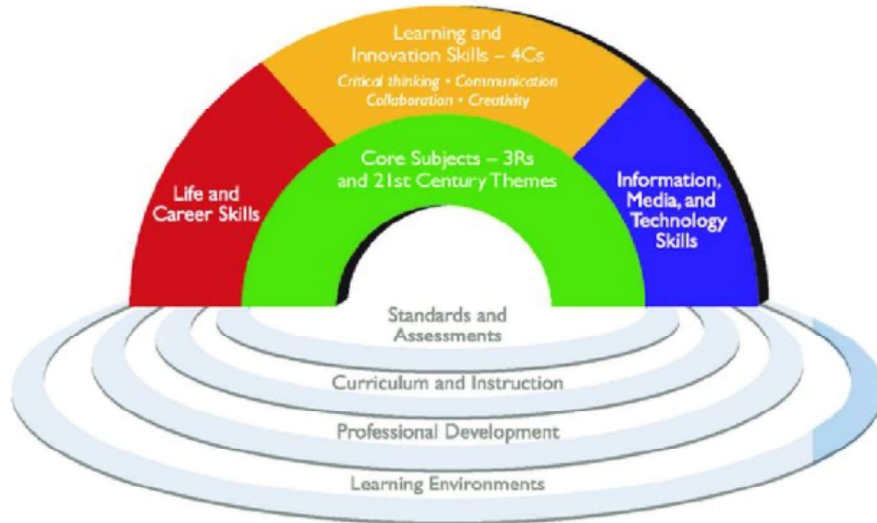


Figure 1. Framework for 21st century learning (Partnership for 21st Century Learning, 2007)

The P21 framework comprises mainly (i) life and career skills (i.e., flexibility/adaptability, initiative/self-direction, social and cross-cultural skills, productivity/accountability, and leadership/responsibility) (ii) learning and innovation skills (i.e., creativity/innovation, critical thinking/problem solving, communication, and collaboration) (iii) information, media, and technology skills (i.e., information literacy, media literacy, and ICT literacy) (iv) core subjects (i.e., English, reading or language arts, world languages, arts, mathematics, economics, science, geography, history, government and civics) and 21st century themes (i.e., global awareness, financial, economic, business and entrepreneurial literacy, civic literacy, health literacy, and environmental literacy) along with (v) the support systems, including standards and assessments, curriculum and instruction, professional development, and learning environments.

In collaboration with the Boston Consulting Group, World Economic Forum (2015) published a report titled *New Vision for Education: Unlocking the Potential of Technology*, wherein 16 21st century skills were listed under three categories: foundational literacies, competencies, and character qualities (Figure 2).

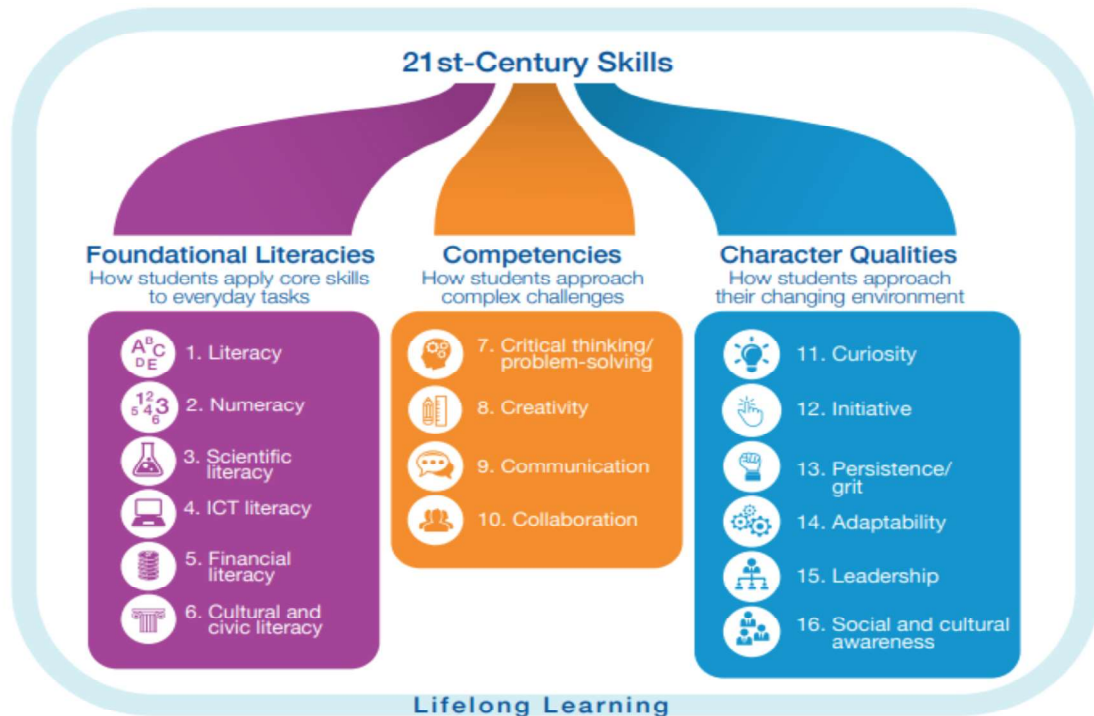


Figure 2. 16 skills required for 21st century learners (World Economic Forum, 2015)

Of the 16 skills proposed by the WEF (2015), literacy, ICT literacy, and cultural and civic literacy in foundational literacies along with all competencies and character qualities might be associated with English language teacher education. Literacy is defined as the “ability to read, understand and use written language” (WEF, 2015, p.23). A well-known international survey conducted triennially that aims to evaluate the scholastic performances of 15-year-old students in OECD and participating countries in literacy in the hope for fostering education systems through comparable data by country is The Program for International Student Assessment (PISA). Reading literacy is related to the purposes of the current study and defined as “understanding, using, evaluating, reflecting on and engaging with texts in order to achieve one’s goals, to develop one’s knowledge and potential, and to participate in society” (OECD, 2015, p.15). Proficiency in reading is required for a wide range of human activities, including following directions in a manual, determining the who, what, when, where, and why of a scenario, and interacting with people for a specific purpose or transaction (OECD, 2015, p.86). In the latest study (2018), Turkey was ranked Level 2 (SD=88, M=466) in reading, suggesting that Turkish students received a score between 407.47 to less than 480.18 thus remained under the OECD average score ($M_a=487$) out of the 79 participant countries and economies. The can-do statements for Level 2 students might be observed in Figure 3 below.

2	407	77.4%	Readers at Level 2 can identify the main idea in a piece of text of moderate length. They can understand relationships or construe meaning within a limited part of the text when the information is not prominent by producing basic inferences, and/or when the text(s) include some distracting information. They can select and access a page in a set based on explicit though sometimes complex prompts, and locate one or more pieces of information based on multiple, partly implicit criteria. Readers at Level 2 can, when explicitly cued, reflect on the overall purpose, or on the purpose of specific details, in texts of moderate length. They can reflect on simple visual or typographical features. They can compare claims and evaluate the reasons supporting them based on short, explicit statements. Tasks at Level 2 may involve comparisons or contrasts based on a single feature in the text. Typical reflective tasks at this level require readers to make a comparison or several connections between the text and outside knowledge by drawing on personal experience and attitudes.
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Figure 3. Description of Level 2 for reading proficiency in PISA 2018 (OECD, 2015)

Previous studies maintained that communication and linguistic delays, which are essential components in the development of early reading abilities, are common among English language learners (Banerjee, Alsalman & Alqafari, 2015). This issue should therefore be addressed by language teachers through manifold techniques and strategies, such as sociodramatic play (Banerjee et al., 2015) and game-like activities (Celik-Korkmaz & Karatepe, 2018). Additionally, information and communication technologies might be incorporated given that learners hold positive attitudes toward its integration (Simsek, 2008), and cooperative learning method might be utilized in teaching reading considering its effectiveness (Bolukbas, Keskin & Polat, 2011).

Another literacy salient for 21st century learning is ICT; that is, literacy in information and communications technologies, referring to the “ability to use and create technology-based content, including finding and sharing information, answering questions, interacting with other people and computer programming” (WEF, 2015, p.23). Required for a vast majority of jobs, these abilities might aid in organizing workload, streamlining operations, and gaining access to digital information (Infante-Moro, Infante-Moro & Gallardo-Pérez, 2019). Despite the various changes that took place in technology in education, the role of language teachers has remained constant: assisting and leading learners through the language learning process, providing them with the greatest resources and methodologies now available (Dudeney & Hockley, 2012). However, Uzun’s study (2016) revealed that the ELT curriculum in Turkey did not support the ICT knowledge and skills, implying discrepancies between the pedagogical knowledge received by teacher trainees and the technical knowledge.

The third literacy that might be related to English language teaching is cultural and civic literacy that refers to the “ability to understand, appreciate, analyse and apply knowledge of the humanities” (WEF, 2015, p.23). Civic literacy refers to the ability to make educated decisions and participate as an engaged citizen (Morgan, 2016). Becoming and staying informed, forming and expressing opinions and ideas, working together, and taking action to strengthen communities were considered as tasks related to civic literacy (Wilson, 2002). ED Hirsch created the phrase "cultural literacy" in the 1980s to describe a body of information that young people in the United States should acquire in order to function well in their community. It has been defined as a “social practice that is inherently dialogic and based on learning and gaining knowledge through empathic, tolerant, and inclusive interaction” (Lähdesmäki et al., 2022, p.5) and “a process of engaging with cultures and a co-creation and expression of cultural identities and values” (Lähdesmäki et al., 2022, p.5; Maine, Cook, & Lähdesmäki, 2019). The Dialogue and Argumentation for cultural Literacy Learning in Schools (DIALLS) project provided the following wheel (Figure 4) that also illustrates cultural literacy as a central component comprising cultural heritages, cultural expression, cultural awareness, and cultural identities.

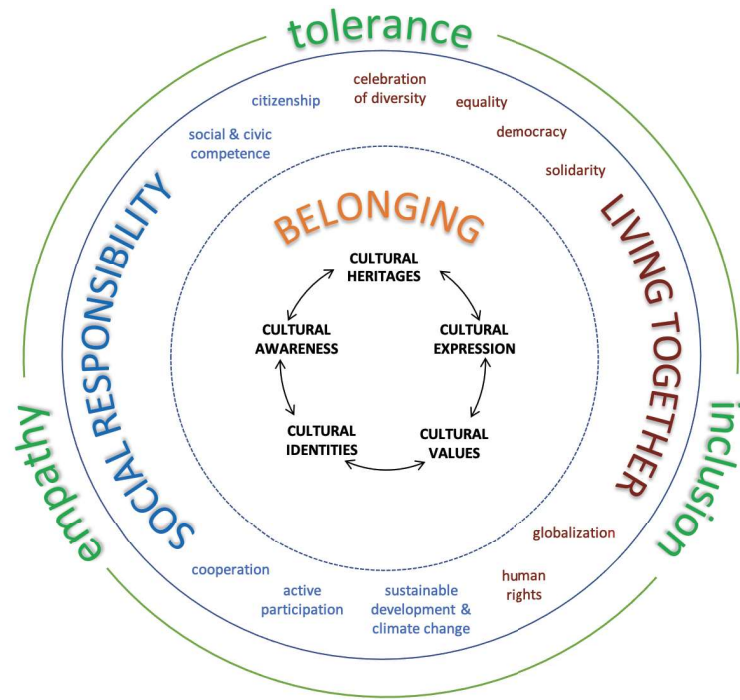


Figure 4. DIALLS wheel (adapted from <https://dialls2020.eu/cultural-literacy-in-dialls/>)

In a multicultural and multilingual world, the acquisition of cultural literacy might be deemed salient, especially for language learners and teachers. Previous studies demonstrated that pre-service teachers of English should be acquainted with the teaching methods for intercultural competence (Catalano, 2014; Demircioğlu & Çakır, 2015). This might be promoted by the study conducted by Devrim and Bayyurt (2010) revealing that Turkish EFL learners indicated a preference for both local and target cultures with regard to their integration in classrooms and teaching materials.

With regard to how learners should approach complex challenges, four competencies were proposed: critical thinking/problem solving, creativity, communication, and cooperation. Also known as learning and innovation skills, these competencies enable us to distinguish between learners who are future-ready and those who are not. They therefore become increasingly important for 21st language learners to acquire. Learners should be educated for their future, not their past, in order to adapt to a changing environment (Schleicher, 2018). In other words, rather than dullness and stereotyping, they should be fostered and nurtured toward originality and invention. To deal with the challenges and uncertainties of an ever-changing world, students must also develop critical thinking and problem-solving skills. According to a study, students had positive attitudes toward critical thinking skills being included in the design of their English course because they found it authentic and motivating (Bağ & Gürsoy, 2021). Learners in the twenty-first century are also expected to communicate clearly utilizing a variety of technologies and media for a variety of objectives in a variety of circumstances. They must also work together with teams of people from various backgrounds. Language instructors may be able to expand possibilities for interaction and cooperation in language classes by using pair-work and group-work.

Six skills were listed to be acquired by learners to approach their changing environment: curiosity, initiative, persistence/grit, adaptability, leadership, and social and cultural awareness. Connected with inquisitive thinking, curiosity is strongly linked to all elements of human growth, including learning and the desire to gain information and skills (Zuss, 2012). A study conducted by Tulgar (2018) found that curiosity contributed to learners' linguistic knowledge and development. Initiative is defined as "an important act or statement that is intended to solve a problem" (Collins Dictionary, 2022). There

is a need for a change in traditional interactional methods and more learner initiative in the classroom, which has certain implications for teacher training (Garton, 2002). Initiative is also an aspect of learner autonomy (Jiménez-Raya & Vieira 2008), which is a rather significant but neglected educational goal in teacher education contexts (Manzano Vázquez, 2016). Persistence refers to “the quality that allows someone to continue doing something or trying to do something even though it is difficult or opposed by other people” (The Britannica Dictionary, 2022, n.d.). Feng and Papi (2020) found that Grit's validity as a unitary notion is dubious, imply that distinct selves predict qualitatively different motivated actions, and demonstrate that perseverance of effort, in conjunction with future selves, is a powerful motivator. Defined as “an ability or willingness to change in order to suit different conditions” (Cambridge Dictionary, 2022, n.d.), adaptability is another skill important for 21st century learning. It is also promoted as a salient skill in intercultural encounters (Chamberlin-Quinlisk, 2010). Zarrinabadi et al. (2021) argued that adaptability might be endorsed by the acquisition of a growth mindset. Leadership comprises an individual's, group's, or organization's capacity to "lead", influence, or direct other individuals, teams, or entire organizations, both as a research topic and as a practical skill. McGee, Haworth and MacIntyre (2015) supported the teaching and learning of leadership practices and capacity given the increasing number of English language learners. Social awareness is defined as the capacity to comprehend and sympathize with people from different origins and cultures, to grasp social and ethical standards, and to recognize family, school, and community resources and supports (Transforming Education, 2014). Cultural awareness, on the other hand, refers to a person's comprehension of the distinctions that exist between oneself and others from various nations or backgrounds, particularly in terms of attitudes and values (Collins Dictionary, 2022). To increase social awareness, multicultural literature was promoted (Morrell & Morrell, 2012). With regard to cultural awareness, learners are not considered to have mastered a foreign language unless they have understood the cultural contexts in which the target language is used (Frank, 2013). In this regard, awareness of both native and target cultures might be encouraged in language learning and teaching contexts.

Overall, 16 skills were described and discussed in relation to their significance for 21-century learning environment. The teaching of these skills, either by their nature or the requirement of the age we are in, necessitates the integration of mobile, computer, information and communication technologies. However, education has historically taken a long time to catch up with technological advancements (OECD, 2018) because teachers oppose or struggle to adapt to new technologies in one of two ways (Thota & Negreiros, 2019) and the findings of academic research on technology application are inconclusive and even contradictory (Ilin, 2020). Implementing 21st-century skills into the curriculum in a meaningful way is tough because institutional change is difficult, but it can and should be done (Ilin, 2020). In this regard, Soffel (2016) presented the following tips to teach these skills (Figure 5).

Exhibit 3: A variety of general and targeted learning strategies foster social and emotional skills



Figure 5. How to teach 21st century skills (adapted from Soffel, 2016)

A Concise Description of Language Teacher Education

Language teacher education, whose coverage includes methodologies, curriculum development, syllabus design, material development and evaluation and testing, among others, is concerned with the professional development of language teachers as well as the social, political, and cultural factors that influence the teaching of specific languages (Ayoola, 2010, p.650). The shift from an understanding that views language teacher education as acquaintance with classroom methods and skills to an understanding wherein teacher candidates devise their theories and become more conscious of their own teaching methods has brought about a new insight that we must delve into the cognitive worlds and personal teaching methods of language instructors to understand how they learn to teach and how their professional lives change (Freeman & Johnson, 1998; Freeman & Richards, 1996).

Two aspects emerge when examining teacher education programs: knowledge base and models, wherein the first one refers to the information teacher trainees must know while the latter is concerned with the ways this information is delivered. Day and Conklin (1992) proposed four categories of knowledge: content, pedagogic, pedagogic content, and support. Day (1993) further presented four teacher education models (i.e., apprentice-expert, rationalist, case studies, and integrative). Content knowledge refers to the knowledge of English language and its literary and cultural aspects. Pedagogic knowledge is concerned with how teachers teach (i.e., generic teaching strategies). Pedagogic content knowledge pertains to the ability to represent material information in a variety of ways that learners can grasp, the understanding of how learners come to grasp the subject, the learning difficulties they might encounter, the misconceptions that inhibit learning and ways to handle them, the ways of teaching specific language areas (e.g. grammar, vocabulary, etc.), knowledge of methods, materials development, testing and evaluation (Day, 2013). The last knowledge category (i.e., support

knowledge) touches on the understanding of numerous fields that informs our approach to English teaching and learning (e.g., sociolinguistics and psycholinguistics). A fifth knowledge base was added with the prevalence of technology in education: technological pedagogical content knowledge (TPACK) proposed by Mishra and Koehler (2006). This framework builds upon Shuls (1986) PCK yet differs in terms of the precision with which these connections between content, pedagogy, and technology are articulated. In practice, this implies that we should examine each of these components separately as well as in pairs: pedagogical content knowledge (PCK), technical content knowledge (TCK), technological pedagogical knowledge (TPK), and all three together (Mishra & Koehler, 1996).

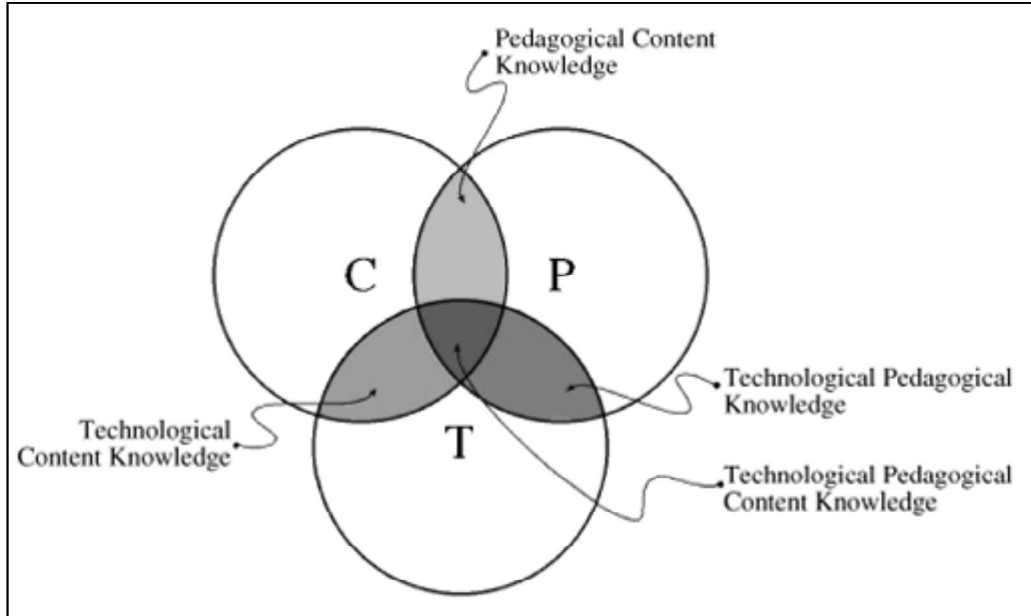


Figure 6. TPACK framework (adapted from Mishra & Koehler, 1996, p.1025)

The models, on the other hand, refers to the ways teacher training programs deliver knowledge to their students. Having a limited use and being the oldest model, the apprentice-expert model applies to situations whereby trainees work closely with expert teachers. It is, however, conceptually employed in teaching practicum courses wherein teacher trainees work with more knowledgeable teachers. It has harshly been criticized for being a static approach to a highly dynamic profession (Wallace, 1991). It is self-evident that the apprentice-expert model aids in the development of pedagogic, content, and pedagogic content knowledge in learners, with doubts cast on its effectiveness to present learners with the support knowledge (Day, 1993). Since trainees work with experts, it might be claimed that experiential knowledge is also delivered in this model. The rationalist model involves the teaching of scientific knowledge and its application by teachers to their teaching. Also known as “the applied science model” (Wallace, 1991, p.8) and “rationalist learn-the-theory-and-then-apply-it model” (Ur, 1992, p.56), this model is the conventional, and probably still the most widespread, model that underpins most professional training or education programs (Wallace, 1991). It views teaching as a science that might be subject to rational and objective examination, the findings of which are then conveyed to learners by teachers. One critical weakness of this model is allowing students to use what they've learned about science to teaching on their own. Another shortcoming is the lack of connection between research and practice (Wallace, 1991). A third drawback is that many critical concerns in English instruction are not fully addressed (Day, 1993). The rationalist method is a great source of content and support knowledge, but it's not much use for pedagogic and pedagogic content knowledge (Day, 1993). The third model (i.e., case studies model) includes students debating and analyzing real-life case studies in the classroom as well as the implementation of certain behaviors to bigger concepts in the discipline (Day, 1993). Meagerly utilized in teacher education programs, this model has been

criticized for the nature of cases comprising classroom stories that are not necessarily cases. The model is a good way to introduce students to content knowledge, however it's a little short in pedagogic, pedagogic content, and support knowledge (Day, 1993). The last model (i.e., integrative model) ascertains that the learner obtains pedagogic, content, pedagogic content, and support knowledge through a range of experiences and activities. The provision of four categories of knowledge, however, does not necessarily ensure the knowledge base, which should therefore be supported by a reflective practice wherein all aspects of the knowledge base are subjected to a critical review. (Day, 1993). Day (1993) further holds that reflective practice exercises must be a vital element of the students' overall program of study and employed in all classes, regardless of the sort of knowledge they are concerned with, to be fully integrative.

English Language Teacher Education in Turkey

Foreign language teacher education is deeply rooted in Turkish education context (Akyel, 2012), with English language teacher education (ELTE) in its infancy in the late 1940s (Topal, 2020). In terms of teacher education reforms, it may be described as follows: in 1973, all teacher education programs were raised to higher education levels, in 1982, universities were given responsibility for teacher education, and in 1997, teacher education programs and structures were re-regulated (Yüksel, 2012). Further updates were introduced in the ELTE program in 2006 and 2009. The 2006 program update included an increase in general knowledge courses and an authority transfer to universities as per determining 25% of the courses apart from the total common courses in the program (Higher Education Council, 2018). Following the revisions made in 2006, the updated ELTE program comprises 50-60% field knowledge, 25-30% professional knowledge, and 15-20% general knowledge courses (HEC, 2018). General Competencies of the Teaching Profession and Teacher Strategy Document published in 2017 included new teaching competencies as well as new goals and expectations. The years following the last update of the program have also witnessed the introduction of some official documents including the 10th Development Plan (2014-2018), Strategic Plan of the Ministry of National Education (2015-2019), Turkey Higher Education Qualifications Framework, Teacher Training and Educational Sciences Field Qualifications. It has also been observed that ethical, moral, moral and cultural issues are gaining importance both in the field of higher education, educational sciences and teacher training, and the problems related to these issues are increasing significantly. For this reason, it is expected that teacher candidates in new undergraduate programs will be equipped with professional knowledge and skills related to their field, as well as equipped with social, cultural, moral and intellectual aspects and have a developed personality (HEC, 2018). Teacher trainees are further expected to (i) recognize universal, national and local/regional cultures and the common and different aspects between them, (ii) be a role model in terms of cultural, ethical, moral values and personality, and (iii) graduate as a technology literate, researcher teacher (HEC, 2018). Considering all these, the ELTE program received an update in 2018. With this revision, the courses offered in the ELTE program comprised 34% professional knowledge, 18% general knowledge, and 48% field knowledge. Considering the target student population of these undergraduate programs, the curricula are mostly structured on basic skills, attitudes, value acquisition and adaptation (HEC, 2018). In line with the developments in the world, the programs have been created by prioritizing professional knowledge and skills for the education and training of the field, as well as the field knowledge. The revision has also brought update on the number of course credits and class hours. 159 credits and 175 class hours in the existing program have reduced to 148 credits and 155 class hours with the update.

Method

This is a qualitative study using document analysis, a type of qualitative research in which the researcher interprets documents to give them voice and meaning in relation to a study issue (Bowen, 2009). It is a social research method and a significant research instrument in and of itself, as well as an essential component of most triangulation schemes (the use of many approaches to explore the same phenomena) (Bowen, 2009). Three main types of documents were outlined by O'Leary (2014): public records, personal documents, and physical evidence. In this regard, the present study utilizes public records, examples of which include transcripts of students, mission statements, yearly reports, policy manuals, student handbooks, strategy plans, and syllabi

1. Results and Discussion

The information about the courses offered in each semester is presented in the following tables, wherein the abbreviations have the following explanations: T= theory, P= practice, C= credit, ECTS= European Credit Transfer System, PK= professional knowledge, GK= general knowledge, FK= field knowledge.

Table 1. The courses offered in the first semester of the ELTE program in Turkey

	Course Title	T	P	C	ECTS
PK	Introduction to Education	2	0	2	3
PK	Educational Sociology	2	0	2	3
GK	Ataturk's Principles and History of Revolution 1	2	0	2	3
GK	Foreign Language 1	2	0	2	3
GK	Turkish Language 1	3	0	3	5
GK	Information Technologies	3	0	3	5
FK	Reading Skills 1	2	0	2	2
FK	Writing Skills 1	2	0	2	2
FK	Listening and Pronunciation 1	2	0	2	2
FK	Oral Communication Skills 1	2	0	2	2
Total		22	0	22	30

The analysis of the course descriptions revealed that educational trends in the twenty-first century and cultural foundations of education were included in *Introduction to Education* course. *Educational Sociology* course contains such topics as culture and education and the school as a social, cultural, moral system and community. The content of both courses might be claimed to be comparatively connected with the cultural/civic literacy and social/cultural awareness in the 21st century skills. *Ataturk's Principles and History of Revolution 1* might be considered within the scope of one of the core subjects (i.e., history) outlined in the framework. *Foreign Language 1* offers teacher trainees practice in four language skills (i.e., listening, reading, speaking, and writing) in German or French. It might be argued that this course coincides with the core subjects of the 21st century learning wherein the learning and teaching of English and world languages is promoted. In *Turkish Language 1*, teacher trainees are presented with information on literacy; more specifically, written language and its features, spelling and punctuation, characteristics of written and oral expression, text structure, textual features, and writing texts. The writing abilities of teacher trainees are arguably surmounted in this course within the scope of literacy. Diverse skills and competencies are conceivably aimed to be gained through *Information Technologies* course, among which are information technologies and computational thinking, problem solving concepts and approaches, algorithm and flowcharts, computer systems, basic concepts of software and hardware, basics of operating systems, current operating systems, file management, utilities (third party software), word processing programs, calculation/table/graph

programs, presentation programs, desktop publishing, database management systems, web designing, internet use in education, communication and collaboration technologies, safe internet use, IT ethics and copyrights, and effects of computers and internet on children/youth (HEC, 2018). This course might be claimed to be directly correlated with the 21st century education, with particular reference to ICT literacy and skills. High-level reading skills and critical thinking skills based on synthesizing, analyzing and evaluating information are also intended to be acquired via *Reading Skills 1* course, which might be associated with literacy component of the 21st century framework. *Listening and Pronunciation 1* course offers teacher trainees with the acquisition of some skills and competencies, some of which are but not limited to basic listening and speaking skills such as word stress and intonation. *Oral Communication Skills 1* course, on the other hand, provides information to learners about developing oral communication skills using appropriate expressions and strategies for various verbal communication situations. In this sense, it might be asserted that both courses include some aspects of communication which is one of the 4C's of the 21st century framework.

Table 2. The courses offered in the second semester of the ELTE program in Turkey

	Course Title	T	P	C	ECTS
PK	Educational Psychology	2	0	2	3
PK	Educational Philosophy	2	0	2	3
GK	Ataturk's Principles and History of Revolution 2	2	0	2	3
GK	Foreign Language 2	2	0	2	3
GK	Turkish Language 2	3	0	3	5
FK	Reading Skills 2	2	0	2	5
FK	Writing Skills 2	2	0	2	2
FK	Listening and Pronunciation 2	2	0	2	2
FK	Oral Communication Skills 2	2	0	2	2
FK	Structure of English	2	0	2	2
Total		21	0	21	30

Ataturk's Principles and History of Revolution 2 is a complementary course that might be associated with history (as one of the core subjects in the framework). *Foreign Language 2*, *Turkish Language 2*, *Reading Skills 2*, *Writing Skills 2*, *Listening and Pronunciation 2*, and *Oral Communication Skills 2* are continuation of the same courses coded 1 in the previous semester. In this sense, they might be considered to include certain aspects of the P21 framework and 21st century skills, with specific reference to core subjects, literacy, and communication. *Structure of English* might additionally be added to that list of courses in that it might arguably be related with one of the core subjects (i.e., English).

Table 3. The courses offered in the third semester of the ELTE program in Turkey

	Course Title	T	P	C	ECTS
PK	Instructional Technologies	2	0	2	3
PK	Teaching Principles and Methods	2	0	2	3
PK	Elective 1	2	0	2	4
GK	Elective 1	2	0	2	3
FK	Elective 1	2	0	2	4
FK	Approaches to Learning and Teaching English	2	0	2	3
FK	English Literature 1	2	0	2	4
FK	Linguistics 1	2	0	2	3
FK	Critical Reading and Writing	2	0	2	3
Total		18	0	18	30

It might be maintained that *Instructional Technologies* offered in the third semester might directly be associated with the 21st century learning, particularly with ICT skills and competencies given that the course encompasses such topics as information technologies in Education, teaching process and classification of instructional technologies, theoretical approaches to instructional technologies, new directions in learning approaches, current literacy, instructional technologies as tools and materials, design of teaching materials, designing thematic teaching materials, field-specific object repository, teaching material evaluation criteria (HEC, 2018). *Approaches to Learning and Teaching English* along with *English Literature 1* and *Linguistics 1* might be connected with the teaching of core subjects as well as cultural literacy/awareness in the framework given the relationship of literature with culture (Shanahan, 1997). *Critical Reading and Writing* might be claimed to contribute to literacy in addition to critical thinking skills and creativity as teacher trainees are required to analyze and summarize current studies selected from the field of English language education and compare texts that advocate different views on the same subject and to produce their own original texts by synthesizing them within the scope of this course (HEC, 2018).

Table 4. The courses offered in the fourth semester of the ELTE program in Turkey

	Course Title	T	P	C	ECTS
PK	Turkish Education History	2	0	2	3
PK	Research Methods in Education	2	0	2	3
PK	Elective 2	2	0	2	4
GK	Elective 2	2	0	2	3
FK	Elective 2	2	0	2	4
FK	English Teaching Programs	2	0	2	3
FK	English Literature 2	2	0	2	4
FK	Linguistics 2	2	0	2	3
FK	Language Acquisition	2	0	2	3
Total		18	0	18	30

Turkish Education History might be viewed within the scope of core subjects (i.e., history) in the P21 framework. *Research Methods in Education* offers trainees the chances to analyze and evaluate data, which might be connected with numeracy and information skills. *English Teaching Programs*, *English Literature 2*, *Linguistics 2*, and *Language Acquisition* courses might be related to one of the core subjects (i.e., English) in 21st century learning.

Table 5. The courses offered in the fifth semester of the ELTE program in Turkey

	Course Title	T	P	C	ECTS
PK	Classroom Management	2	0	2	3
PK	Morals and Ethics in Education	2	0	2	3
PK	Elective 3	2	0	2	4
GK	Elective 3	2	0	2	3
FK	Elective 3	2	0	2	4
FK	Foreign Language Teaching to Young Learners 1	3	0	3	5
FK	Teaching English Language Skills 1	3	0	3	5
FK	Language and Literature Teaching 1	2	0	2	3
Total		18	0	18	30

It might be claimed that *Morals and Ethics in Education* pertains to accountability and responsibility in life and career skills given that the course presents such topics as teaching profession with its social,

cultural, moral and ethical aspects (HEC, 2018). The other three courses, *Foreign Language Teaching to Young Learners 1*, *Teaching English Language Skills 1*, and *Language and Literature Teaching 1* might be included within the teaching of English as one of the core subjects in 21st century education.

Table 6. The courses offered in the sixth semester of the ELTE program in Turkey

	Course Title	T	P	C	ECTS
PK	Measurement and Assessment in Education	2	0	2	3
PK	Turkish Education and School Administration	2	0	2	3
PK	Elective 4	2	0	2	4
GK	Elective 4	2	0	2	3
FK	Elective 4	2	0	2	4
FK	Foreign Language Teaching to Young Learners 2	3	0	3	5
FK	Teaching English Language Skills 2	3	0	3	5
FK	Language and Literature Teaching 2	2	0	2	3
Total		18	0	18	30

It might be maintained that *Measurement and Assessment in Education* relates to numeracy skills while *Turkish Education and School Administration* pertains to social awareness in the framework. The other three courses (i.e., *Foreign Language Teaching to Young Learners 2*, *Teaching English Language Skills 2*, and *Language and Literature Teaching 2*) are the complementary courses from the previous semester and might therefore be considered within the scope of English as a core subject in the framework.

Table 7. The courses offered in the seventh semester of the ELTE program in Turkey

	Course Title	T	P	C	ECTS
PK	Teaching Practicum 1	2	6	5	10
PK	Special and Inclusive Education	2	0	2	3
PK	Elective 5	2	0	2	4
GK	Community Service Practices	1	2	2	3
FK	Elective 5	2	0	2	4
FK	Course Content Development in Teaching English	3	0	3	3
FK	Translation	3	0	3	3
Total		15	8	19	30

Though primarily associated with English as one of the core subjects, *Teaching Practicum 1* course might be claimed to provide learners with the chances to develop persistence/grit and adaptability depending on the varied observation contexts they experience. It might also be claimed that *Special and Inclusive Education* contributes to the development of problem-solving and adaptability skills in that trainees are given training in educational approaches and teaching strategies for different groups that they might utilize in their future classes. *Community Service Practices* is one of the courses that might directly be associated with some of the 21st century skills such as social skills, responsibility, social awareness, and collaboration considering trainees are given education on social responsibility projects in terms of social and cultural values and voluntarily taking part in social responsibility projects individually and as a group. In addition to being included within English as the core subject, *Course Content Development in Teaching English* might also be claimed to contribute to the development and awareness of creativity, initiative, adaptability, and leadership. *Translation* course might provide trainees with cross-cultural skills along with the fact that it might be viewed within the context of core subjects (i.e., English) and world languages (i.e., Turkish).

Table 8. The courses offered in the eighth semester of the ELTE program in Turkey

	Course Title	T	P	C	ECTS
PK	Teaching Practicum 2	2	6	5	15
PK	Guidance in Schools	2	0	2	3
PK	Elective 6	2	0	2	4
FK	Elective 6	2	0	2	4
FK	Exam Preparation in English Language Teaching	3	0	3	4
Total		11	6	14	30

Teaching Practicum 2 is a continuation of the same course coded 1 in previous semester and might be claimed to contribute to the development of the same skills. *Guidance in Schools* might help develop social awareness and collaboration given that the course provides the competencies to be gained in educational, vocational, personal and social fields within the scope of guidance and psychological counseling services along with the cooperation between school administrators and teachers, guidance counselor and psychological counselor (HEC, 2018). *Exam Preparation in English Language Teaching* might be considered within the context of English as one of the core subjects in the framework.

Apart from the compulsory courses, teacher trainees are also offered manifold elective courses since the third semester within the scope of professional knowledge, general knowledge, and field knowledge. The 22 electives offered in professional knowledge are: *Open and Distance Learning*, *Child Psychology*, *Attention Deficit Hyperactivity Disorder*, *Education Law*, *Educational Anthropology*, *Education History*, *Drama in Education*, *Extracurricular Activities in Education*, *Curriculum Development in Education*, *Project Preparation in Education*, *Critical and Analytical Thinking*, *Education of Hospitalized Children*, *Inclusive Education*, *Character and Value Education*, *Comparative Education*, *Micro Teaching*, *Museum Education*, *Out-of-School Learning Environments*, *Learning Disability*, *Individualizing and Adapting Teaching*, *Sustainable Development and Education*, and *Adult Education and Lifelong Learning* (HEC, 2018). A close examination of the course description has revealed that the electives offered within the scope of professional knowledge might assist teacher trainees with the development of ICT skills, flexibility/adaptability, social/cultural awareness, critical thinking/problem solving, civic literacy and awareness, core subjects (English and History), creativity/innovation, collaboration, and global awareness.

The 18 electives offered in general knowledge are: *Addiction and Combating Addiction*, *Nutrition and Health*, *History and Philosophy of Science*, *Science and Research Ethics*, *Economy and Entrepreneurship*, *Traditional Turkish Handicrafts*, *Human Rights and Democracy Education*, *Human Relations and Communication*, *Career Planning and Development*, *Culture and Language*, *Media Literacy*, *Professional English*, *Art and Aesthetics*, *Turkish Folk Dances*, *Turkish Sign Language*, *Turkish Cultural Geography*, *Turkish Music*, and *Turkish Art History* (HEC, 2018). The analysis of course descriptions has unveiled that these courses might contribute to the development of 21st century themes such as global awareness, health literacy and entrepreneurial literacy, core subjects such as English, history, geography, economics, and civics, ICT literacy and skills, social skills and awareness, communication, cultural literacy and awareness.

The 13 electives offered in field knowledge are: *Language and Society*, *World Englishes and Culture*, *Pragmatics and Language Teaching*, *English Textbook Examination*, *Drama in Teaching English*, *Material Design in Teaching English*, *New Approaches to Teaching English*, *Teaching English*

Vocabulary, English in Mass Communication, Evaluation of Classroom Learning, Sociolinguistics and Language Teaching, Discourse Analysis and Language Teaching, and Teaching Integrated Language Skills (HEC, 2018). These courses might be claimed to assist with the development of social/cultural literacy and awareness, creativity, adaptability, initiative, communication, and the teaching of English as one of the core subjects.

Table 9. A general overview of the courses offered in the ELTE program in Turkey

	Overall	T	P	C	ECTS	Hour	Percent
PK	Professional Knowledge	44	12	50	91	56	34
GK	General Knowledge	26	2	27	42	28	18
FK	Field Knowledge	71	0	71	107	71	48
Total		141	14	148	240	155	100

Overall, 20 courses (4 in PK, 7 in GK, and 9 in FK) are offered in the first year; 18 courses (12 compulsories and 6 electives, 6 of which are in PK, 2 in GK, and 10 in FK) in the second year; 16 courses (10 compulsories and 6 electives, wherein 6 belong to PK, 2 to GK, and 8 to FK) in the third year; and 12 courses (8 compulsories and 4 electives, of which 6 are in PK, 1 in GK, and 5 in FK) in the fourth and final year of ELTE departments in Turkey (HEC, 2018). The 66 courses offered within the scope of the ELTE program are theory-based (141 hours) and practice-based (14 hours), wherein field knowledge courses have the highest theoretical content while professional knowledge courses have the highest practical content. In addition, general knowledge courses have the lowest theoretical content whereas field knowledge has the lowest practical content.

With regard to the acquisition of 21st century skills and competencies, it might be stated that the courses offered in the first year might assist with the development of cultural/civic literacy, social/cultural awareness, literacy, ICT literacy and skills, communication, and core subjects (i.e., History, English, and world languages). The courses taught in the second year might be claimed to contribute to the development of ICT literacy and skills, cultural literacy/awareness, critical thinking skills, creativity, literacy, numeracy, information skills, and core subjects (i.e., English and History). In the third year, the courses provided to teacher trainees might assist them with the development of accountability, responsibility, numeracy, social awareness, and English as a core subject. It might be asserted that the courses offered in the final year chips in the development of persistence/grit, adaptability, problem-solving skills, responsibility, social awareness, collaboration, creativity, initiative, leadership, cross-cultural skills, and English as a core subject.

The findings suggest that the courses offered within the context of the ELTE program target six skills/competencies in the first year, eight in the second year, five in the third year, and 11 in the last year of the ELTE departments. A total of 30 21st century skills and competencies might be claimed to be presented via the courses in the ELTE departments. The 53 elective courses (22 in PK, 18 in GK, and 13 in FK), on the other hand, might assist teacher trainees with the development of 27 skills and competences (nine in PK, 12 in GK, and six in FK). A few issues need to be voiced here. First, the course descriptions were made by the HEC, but the education faculties are authorized to determine courses, curricula, and credits in teaching programs on condition that the course categorizations as PK, GK, and FK remain the same and attention is paid to these categorizations regarding the number of courses, number of course hours/credits and intensity (HEC, 2020). In this sense, the ELTE programs offered in the Turkish universities might vary according to their effectiveness of assisting the development of 21st century skills and competences. It must further be noted here that the arguments

made here comprise the comparative analysis of course descriptions and definitions of 21st century skills therefore require validation through qualitative and quantitative studies. Second, English language teachers might resist to the changes in methodologies and materials (Hamlaoui, 2021). Their perceptions and attitudes should therefore be altered in accordance with the 21st century education.

Relevant studies in the Turkish context have yielded the following results. For instance, Uzun (2016) argued that neither the educational nor the technical courses adequately supported the participants' ICT knowledge and abilities within the context of ELT programs in Turkey. Çakır and Güngör (2017) examined the syllabuses of Teaching English to Young Learners courses in the ELTE program in terms of 21st century teacher qualifications and indicated the ineffectiveness of the course as per the aims. Bedir (2019a) found that pre-service teachers viewed 21st-century learning primarily as the use of technology into classroom instruction and were fairly aware of and active with 4Cs, while having a favorable attitude about them. In another study, Bedir (2019b) developed a framework for the integration of 21st century skills into *Teaching Practicum* course, and observed higher favorable effects for the intervention of 21st century skills, primarily learning and innovation abilities, due to the active engagement of pre-service teachers. Basol and Inozu (2019) investigated the intercultural communicative competence for teacher trainees in a Turkish ELT department and found that there was an inadequate understanding of the concept and a vague meaning among teacher trainees as well as no contribution of the academic courses to that end. Şahin and Han (2020) examined the attitudes of teacher trainees and found that P21 skills and integrating technology tools into EFL courses are seen positively by EFL teachers. Examining the digital literacy levels of teacher trainees, Akayoğlu et al. (2020) concluded that university professors have a crucial influence in the development of pre-service teachers' digital literacy skills. In their study exploring creativity in Turkish EFL teachers, Çelik and Akyildiz (2021) concluded that teachers had high perceptions of creativity but were unable to create new and effective ways to enhance creative thinking. Demirkol-Orak and İnözü's study (2021) findings revealed that Turkish English language instructors in the study lacked theoretical and conceptual understanding of 21st century learning and innovation abilities, despite their eagerness to improve them in the classroom. Civelek and Toplu (2021) investigated the likelihood of teaching culture in state and private schools and found that teachers had positive attitudes, taught culture to a certain extent but encountered certain problems in its teaching.

In summary, relative integration of 21st century skills and competences might be observed in the courses offered in ELTE programs in Turkey. Since there might be considerable gaps between theory and practice, further studies (preferably of empirical nature) are recommended to reveal the effectiveness and readiness of the Turkish ELTE program for 21st century education. The relevant studies conducted in the Turkish context have yielded varying results, yet a prevalence of vagueness and inefficacy with regard to the teaching of 21st century skills.

2. Conclusions

This research intended to examine the level of readiness of the ELTE program in Turkey for teaching the 21st century skills. To this end, it comparatively analyzed the course descriptions in the program and 21st century skills in the P21 framework (Partnership for 21st Century Learning, 2007) and those outlined by the WEF (2015). The findings revealed that both the compulsory and elective courses might offer somewhat opportunities for the acquisition of the skills, albeit with some variations across instructional contexts. Since this critical evaluation merely comprised comparative analyses, further empirical studies are needed. The ones conducted thus far, on the other hand, concur with the arguments made in this paper. That is, the ELTE program might not be fully prepared for cultivating 21st language educators. 21st century teachers should be literate, ICT literate, and culturally and civically literate (foundational literacies), critical thinkers, problem solvers, creative, communicators,

and collaborators (competencies), and curious, initiative-takers, persistent, adaptable, leaders, and socially and culturally aware (characters). The ELTE program cultivates English teachers to teach at primary and/or secondary education institutions, wherein generational gaps are hard to escape. Bearing the qualities of 21st century learners in mind, English language teachers should accordingly be equipped with the necessary skills and competences to provide their future students with the optimum learning environment for 21st century education.

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Pronunciation as part of the 4C's in 21st century skills

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Abstract

Effective communication is viewed as the ultimate goal in language learning and teaching contexts. Comprising both verbal and nonverbal processes whereby information is imparted between individuals, communication constitutes one of the 4C's of learning skills of the 21st century skills. For sound verbal communication, clear and accurate pronunciation assumes considerable significance inasmuch as mispronunciation might result in misunderstandings and communication breakdowns. It therefore plays a salient role for both language learners and teachers. However, pronunciation has received relative or no merit in language education. Teachers have ignored it due to their cognition or curricular restraints thus leaving inadequate opportunities for learners to receive meaningful input. This has produced considerable effects for both stakeholders. That being the case, this paper intends to attend to pronunciation as an important communication skill, explore why it still matters for language learners and teachers in the 21st century, and present engaging and research-based ways for its integration in language classrooms.

Keywords: pronunciation; 21st century skills; learning skills; language teachers; 4C's

Introduction

A brief historical journey will take us to the emergence of the first industrial revolution in the 19th century when water and steam power was used for mechanized production (Schwab, 2016). The second one utilized electric power for mass production, and the third employed electronics and information technologies for automated production (Schwab, 2016). Building on the third, the fourth industrial revolution is characterized, in Schwab's (2016) words, "by a fusion of technologies that is blurring the lines between the physical, digital, and biological spheres" (n.d.). These revolutions bear substantial significance for they are considered the milestones of globalization defined as "the growing interdependence of the world's economies, cultures, and populations, brought about by cross-border trade in goods and services, technology, and flows of investment, people, and information" (PIIE, 2018, n.d.). Also termed as Globalization 4.0, the fourth wave of industrialization takes the world to the frontiers of the cyber world, with digitalization taking over across almost all spheres of life thanks to artificial intelligence advancing at a pushing-the-limits pace. The groundbreaking changes brought by the fourth wave of globalization has manifested itself in the field of education as well. The outbreak of the Covid-19 pandemic has, in fact, demonstrated how unprepared we were as regards online/distance education. With a very few select institutions possessing the required infrastructure to provide online education, it is safe to say that the majority of the educational institutions have had to resort to impromptu resolutions to sustain education. Regardless of being obliged to provide synchronous and asynchronous education owing to an unanticipated pandemic outbreak, this has clearly showed us what we might be missing as to online/distance education and definitely indicated

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certain implications for the changing mode of education as well as the roles of learners, teachers, and institutions.

The 21st century has necessitated the acquisition of novel skills and competencies to tackle the challenges brought by the new world under the influence of Globalization 4.0. To assist practitioners with the integration of these skills and competencies into academic subjects, the Partnership for 21st Century Skills in cooperation with OECD and other organizations and institutions have proposed the Framework for 21st Century Learning (commonly known as P21 Framework) that describes the knowledge, skills, and expertise learners should master to succeed in personal and professional life. Mainly divided into three as learning skills, literacy skills, and life skills, this framework includes English as one of the core subjects. Popularly known as the 4C's in this framework, the learning and innovation skills contain communication. It is therefore plausible to assert that clear and effective communication is one of the key skills that learners should master to adapt to the new work and life requirements. Given that communication is defined as “the act or process of using words, sounds, signs, or behaviors to express or exchange information or to express your ideas, thoughts, feelings, etc., to someone else” (Merriam-Webster, n.d.), it is reasonable to assert that pronunciation assumes greater significance as it considerably but variably determines how successful, effective, and meaningful our conversations might be. Pronunciation is the articulation of sounds in a given language, and it comprises the verbal aspect of communication. In this sense, clear and intelligible pronunciation contributes markedly to sound communication by hampering any potential communication breakdowns (Blake, Verdon & McLeod, 2021; Levis, 2018; Pennington & Rogerson-Revell, 2019). Given the significance of pronunciation for effective communication, novel roles and responsibilities might be assumed by learners and teachers alike. To this end, the present study aims to explore pronunciation within the framework of P21 as part of communication skills, outline the significance of why its teaching and learning is still relevant in the 21st century, and suggest some technology-friendly materials for its instruction in English language education.

The Framework for 21st Century Learning

Success in personal and professional life requires the acquisition of certain skills, knowledge, expertise, and literacies. For this reason, the P21 committee proposed a framework (Figure 1) by which learners could acquire them. The attainment of the skills in certain areas also entails obtaining those in other areas therefore the skills and competencies in this framework are interconnected



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Figure 1. P21 framework for 21st century learning (Adapted from <http://www.battelleforkids.org/networks/p21/frameworks-resources>)

The elements included in the rainbow (i.e. life and career skills, learning and innovation skills, information, media, and technology skills, and key subjects and 21st century themes) in Figure 1 belong to the 21st century student outcomes. It is essential for learners to be proficient in key subjects (i.e. English, reading or language arts, world languages, arts, mathematics, economics, science, geography, history, and government and civics) and interdisciplinary 21st century themes (i.e. global awareness, financial, economic, business, and entrepreneurial literacy, civic literacy, health literacy, and environmental literacy). Considering the pace of globalization that has led to the removal of the physical borders between countries, it becomes essential and reasonable for learners of the future to become proficient in world languages along with English as the international language (or global lingua franca).

The learning and innovation skills help us differentiate between learners who are ready for the future and who are not. It therefore becomes crucial for learners to be equipped with such skills as creativity and innovation, critical thinking and problem solving, communication, and collaboration. In order to adapt to the changing world, learners should be educated for their future not their past (Schleicher, 2018). In other words, they should be encouraged and nourished toward creativity and innovation, rather than dullness and stereotypicality. Learners also need to acquire critical thinking and problem solving skills to handle the challenges and uncertainties of the ever-changing world. A study revealed that learners held positive attitudes toward the inclusion of critical thinking skills in the design of their English course by stating that they found it authentic and motivating (Bağ & Gürsoy, 2021). 21st century learners are also expected to communicate clearly using ample technologies and media for various purposes across diverse contexts. Additionally, they are expected to work cooperatively with teams of diverse background. Through pair-work and group-work, language teachers might increase opportunities for interaction and collaboration in language classrooms.

It would not be wrong to claim that learners of this age were born into technology-enhanced environments. Even Prensky (2001) referred to today's learners as "digital natives" since they no longer are the people our educational system was designed to teach" (p.1). This century is marked by certain characteristics, such as the availability of ample information, instant shifts in technologies, and collaboration skills and individual contributions at an unparalleled extent. To cater for these qualities, 21st century learners should display practical and critical thinking skills concerning information, media, and technology. In this regard, learners should be furnished with information, media, and ICT (information, communications, and technology) literacies that might enable them analyze and create media products, and implement technology effectively. These digital literacies, according to Hafner (2019), might be incorporated into the ELT curriculum through "(1) structured participation in online affinity spaces, (2) embedding digital literacies in the language curriculum, (3) digital multimodal composing projects, and (4) telecollaboration or virtual exchange projects." (p.899).

In addition to these skills and competencies that might be considered academic and cognitive, learners also need to be equipped with certain expertise to be able to operate in the globally competitive world, including life and career skills but not limited to flexibility and adaptability, initiative and self-direction, social and cross-cultural skills, productivity and accountability, and leadership and responsibility (P21, p.7). Thanks to these skills, learners might adjust to changes, be flexible, independent, and self-directed learners, achieve their goals and manage time, cooperate and work efficiently in manifold teams, launch projects, yield results, guide, lead, and assume responsibility for others. It therefore becomes critical for learners to be equipped with these skills so that they become ready for employment upon graduation (Kivunja, 2015).

It goes without saying that certain systems are required for the acquisition and maintenance of these skills and competencies. The framework thus describes such systems as standards, assessment, curriculum and instruction, professional development, and learning environments. The standards help

sustain the focus on the target skills, knowledge, and expertise, whereas assessment promotes various forms of evaluation that also utilizes technology. The curriculum and instruction enable the teaching of the 21st century skills implicitly within the key subjects and interdisciplinary themes through inquiry-based approaches, while professional development allows teachers to integrate the 21st century skills into their lessons. Learning environments in this framework, on the other hand, concentrate on the physical and virtual platforms whereby the target skills and competences are taught to learners.

Overall, the framework for 21st century learning serves as a practical and invaluable guide for educationalists and practitioners to implement the target skills and competencies within the core subjects thus assists learners with the necessities for their personal and professional lives.

Pronunciation as a Salient Component to Communication

Derived from the Latin word *communicare* meaning "to share, communicate, impart, inform," (<https://www.etymonline.com/>), communication might broadly and practically be defined as the transfer or exchange of information between individuals using verbal, nonverbal, and manifold semiotic means to achieve a purpose. To communicate verbally, individuals use words and sounds in a given language. For sounds to be articulated accurately, individuals need to possess a good command of the sound system of a language. In other words, they need to know how words are pronounced. This alone might not be adequate for individuals to successfully convey their messages. Articulating or pronouncing the words accurately might refer to the segmental aspect of pronunciation. On the other hand, employing the accurate stress and pitch patterns in words and sentences, as well as pausing where necessary might be related to the suprasegmental aspect of it. Altogether this pertains to the melody of a language. Both segmental and suprasegmental competence might therefore be claimed to be required for effective communication.

Segmental features refer to "any discrete unit that can be identified, either physically or auditorily, in the stream of speech" (Crystal, 2003, pp. 408–409), such as consonants and vowels. Depending on such various factors as linguistic typology, learner motivation, and instructional contexts, the learning and teaching of these features might pose certain problems for English language learners. Saito (2011), for instance, explored the problematic sounds for Japanese learners of English and found that /æ, f, v, θ, ð, w, l, ɹ/ pronunciation features increasingly determine the perception of native English speakers. In another study, Fouz-González (2017) investigated the effect of Twitter-based pronunciation instruction on improving the pronunciation of 75 potentially problematic lexical items for Spanish learners of English and reported promising results. Wen, Lian and Sangarun (2020) confirmed that such vowels as /ɪ/, /i:/, /e/, /æ/, /ʊ/ and /u:/ were problematic for Chinese EFL learners. In the Turkish context, Arikan and Yilmaz (2020) revealed that /ɾ/, /ð/, /w/, /θ/, /ŋ/, /oʊ/, /ə/, and /æ/ posed problems for prospective English teachers. A research conducted with Brazilian Portuguese speakers of English verified that learners confused the retroflex /ɹ/ with the glottal fricative /h/ (Manfé et al., 2018). It is manifest in these studies conducted internationally that pronunciation continue to be problematic for learners of English from different linguistic backgrounds.

Suprasegmental features, on the other hand, pertain to "a vocal effect which extends over more than one sound segment in an utterance, such as a pitch, stress or juncture pattern" (Crystal, 2008, p.466). These features are also referred to as prosodic features including intonation rhythm, and melody in a given language. Previous research conducted on these features across different contexts revealed varied results. For instance, Nazari and Mirsaeeidi (2017) probed into the effectiveness of communicative pronunciation instruction on enhancing the suprasegmental features (i.e. words stress and intonation) of Iranian EFL learners and yielded positive findings. Cui, Wang and Zhong (2021) explored whether suprasegmental training had any effect on Chinese EFL learners' reading comprehension and discovered optimistic results in relation to reading time and comprehension. In a

study conducted in the Japanese context, Saito and Saito (2017) investigated the effectiveness of instruction on learners' comprehensibility and the development of word stress, rhythm and intonation and indicated positive gains in the related suprasegmental areas. In the Turkish context, Topal (2018a, 2018b) claimed that pre-service English teachers had problems with pitch and juncture phonemes of If-clauses and revealed the efficacy of a remedial instruction on remediating the problems with these suprasegmental features. As with segmentals, the cited studies exhibit the potential problems of yet solutions for suprasegmental pronunciation features across various contexts.

To summarize, there is no consensus on which pronunciation feature should be prioritized in the relevant literature (Wang, 2020). These variations in findings imply one thing, as Munro, Derwing and Thomson (2015) argued that pronunciation instruction should be personalized. With recent advancements in computer and mobile technologies, creating personal learning environments have become much feasible. Language teachers should therefore utilize these technological tools for pronunciation instruction and provide learners with abundant opportunities for discovery learning.

3. Suggestions for the Pedagogical Implementation of Pronunciation

The studies cited thus far imply that there is still a need for teaching pronunciation features across various educational contexts since they continue to be problematic for English language learners from diverse linguistic backgrounds. Bearing this in mind and in line with the significance attached to communication in the P21 framework, sundry and research-based recommendations might be endorsed for pronunciation instruction in accordance with the theoretical frameworks of computer-assisted language learning (CALL), computer-assisted pronunciation teaching (CAPT), and mobile-assisted language learning (MALL). To implement pronunciation instruction in line with the 21st century skills, the following framework was proposed by the researcher.

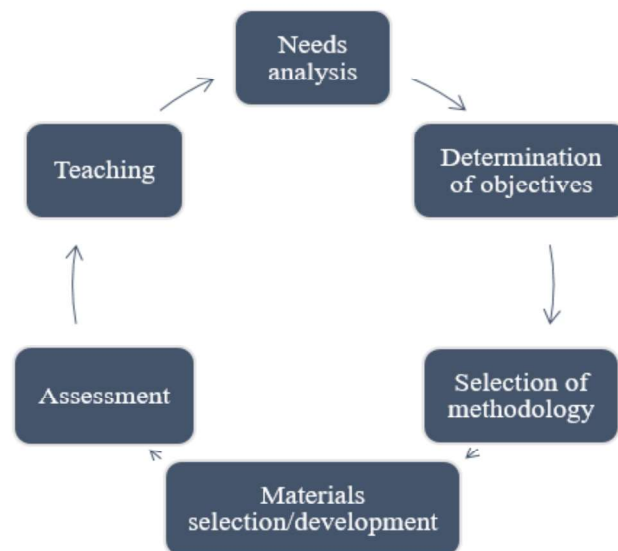


Figure 2. A framework for implementing pronunciation instruction

The framework displayed in Figure 2 comprises six interconnected steps designed in the hope for contributing to the implementation of pronunciation classes effectively pursuant to the P21 framework objectives. The first step of the framework is needs analysis, during which language teachers identify what learners need with reference to pronunciation features (i.e. segmentals and suprasegmentals). Both features were proved to be effective in influencing comprehensibility and intelligibility in speech to varying degrees. Another issue to consider in this step is to determine another area of focus, more

precisely, perception and production. Since speech encompasses both perception and production, language teachers are urged to decide on this as well. Diagnostic tests might be employed here to identify the needs. To diagnose learners' levels of perception, teachers might utilize ready-made tests, such as the Perception of Spoken English (POSE) test developed by Shewell (2004). For the level of production, productive pronunciation tests wherein learners are asked to read aloud a test that includes all English phonemes, such as *The boy who cried wolf* (<http://read.gov/aesop/043.html>) or *Please call Stella* (<http://accent.gmu.edu/about.php>) in a stress- and sound-reduced environment might be utilized. These reading texts were also exploited by previous researchers (Arikan & Yilmaz, 2020; Chen & Tian, 2020). The voice recordings of learners might then be evaluated by teachers and their colleagues, which are suggested in previous research (Saito, 2014). Another option for perceptive and productive diagnosis might be through utilizing automatic speech recognition (ASR) tools, as employed in previous studies (Dillon & Wells, 2021). A final option might be using diagnostic tests developed by teachers in accordance with local, contextual, and individual needs. In a way, such tests serve as a means of customized diagnostic assessment wherein teachers prepare personalized testing content for learners, as exploited by other researchers (Wu, Su & Liu, 2013).

The second step in the framework is to determine the objectives, which could be exemplified as follows: (i) to raise learners' awareness about the English sounds, (ii) to assist learners with the discrimination of consonants and/or vowels, (iii) to equip learners with the ability to transcribe sounds or words phonetically, and (iv) to explicitly provide learners with authentic resources by which they could increase their intelligibility. Depending on the context, learners, teachers, institution, and culture, the objectives might vary to a certain degree. A general objective might be to focus on speech production (where pronunciation is microfocus) and/or speech performance (where oral communication is macrofocus) as Morley (1991) suggested. Given the relationship of pronunciation with other language skills, such as grammar, vocabulary, listening, and speaking (Richards, 2015), the objectives might be arranged accordingly. Considering the English language contexts, such as English as a second language (ESL), English as a foreign language (EFL), English as an international language (EIL), English as a Lingua Franca (ELF), English language teacher education (ELTE), and English for academic purposes (EAP) wherein the goal of learning English differs, it goes without saying that the objectives should be formulated variably. To illustrate, language teachers might be expected to be furnished with the knowledge and awareness of phonetics and phonology given that they present role models for their future students (Richards, 2015) and as part of international teaching standards (TESOL, 2019). For that reason, the objectives in ELTE contexts can be organized correspondingly. The objectives might also be specified in reference to such concepts as intelligibility, comprehensibility, and accentedness which are deemed significant in pronunciation instruction (Derwing & Munro, 1997). Additionally, the objectives might be defined in accordance with the P21 framework, for instance, to help learners be proficient in oral communication or to enable learners to work in pairs or groups (collaboration) to act out a scene from a TV series or movie (creativity) and reflect on their performance (critical thinking).

The next step to be taken after determining the objectives is to select the appropriate methodology or pedagogical model to exploit for instruction. In the 21st century, there are eight methodologies that every language teacher should familiarize themselves with (Realinfluencers, 2019): flipped/inverted classroom, project-based learning, cooperative learning, gamification, problem-based learning, design thinking, thinking-based learning, and competency-based learning. Flipped classroom, according to Bishop and Verleger (2013), is "a new pedagogical method, which employs asynchronous video lectures and practice problems as homework, and active, group-based problem solving activities in the classroom" (p. 2). This model was shown to provide the following benefits in language education: enhancing learner engagement, speaking skills, peer interactions, utilization of deep learning strategies, learners' ICT and higher-order thinking skills, learner's motivation and preparedness,

notwithstanding some challenges including extra workload for learners/teachers and internet-related problems (Turan & Akdag-Cimen, 2020, pp. 9-10). In English language teaching classes where the flipped classroom model is utilized, learners might be assigned the paperwork that takes time while in class thus come prepared to class where they can role-play real-life situations, such as ordering in a restaurant. This allows teachers to focus on the overall productive performance of learners with regard to pronunciation. The second method, project-based learning, is “a student-centered model that organizes learning and studying around projects” (Du & Han, 2016, p. 1079). It comprises six steps: statement of subject/sub-subjects and organizing groups, creation of projects, project application, presentation planning, making the presentation, and evaluation. Utilizing this method, language teachers might assign learners to groups to create a video that shows their act-out of an episode of a short TV series. This way, they can evaluate learners’ speech performance by way of a project. Cooperative learning “refers to a systematic instructional method in which students work together in small groups to accomplish shared learning goals” (Zhang, 2010, p. 81). Amongst some of the benefits of this model are favorable impact on student relationships, self-esteem, long-term retention, and comprehension of course material (Zhang, 2010). An implementation of this model in a pronunciation-oriented class might be dividing learners into two main groups (e.g. for and against) and asking them to discuss and defend their opinions based on the given topic. Teachers might then make an overall assessment of group performances, perhaps based on a rubric. The fourth pedagogical model is gamification which refers to “the use of game design elements in non-game contexts” (Deterding et al., 2011, p. 11) and comprises “interface design patterns, game design patterns and mechanics, design principles and heuristics, game models, and game design methods” (Garland, 2015, pp. 9-10). Barcomb and Cardoso (2020) found promising results with regard to the inclusion of gamified system for L2 pronunciation in an online class teaching the /r/ and /l/ sounds. In this regard, various other computer software (e.g. Pronunciation Coach 3D, Pronouncer, and Audacity), mobile applications (e.g. VoScreen, ELSA Speak, Sounds: Pronunciation App, and Say It: English Pronunciation), and websites (e.g. YouGlish, Forvo, and Saundz) might be utilized for teaching and practicing pronunciation features. These computer and mobile technologies might be exploited as auxiliary materials for pronunciation practice or revision. Another method that can be utilized to teach pronunciation is problem-based learning which is a teaching style in which students are taught concepts and principles through the use of complicated real-world issues rather than the direct presentation of facts and concepts. Capon and Kuhn (2004) demonstrated that learners could integrate new information with their existing knowledge activated by this method. In a typical pronunciation class utilizing this model, teachers might form groups of three or four and assign each group a short video clipped from a movie or commercial and ask learners to transcribe the video by illustrating where the stress is and when the pitch goes up/down. Originally derived from industrial engineering for problem solving and client satisfaction, design thinking allows for a more precise identification of each student's particular difficulties, as well as the creativity and innovation that leads to the happiness of others, resulting in a symbiotic relationship (Realinfluencers, 2019). The model consists of five steps: empathizing, problem statement, ideation, prototyping, and testing. This model might, in a way, be associated with the personalized learning endorsed by MALL environments. Applied to a pronunciation course, this model might bring about customized/individual learning plans that include both instruction (explicit/implicit teaching) and assessment (human/computerized evaluation) on part of learners. To save time and energy, this model might be applied to small groups thus enable creativity and collaboration, as advocated in earlier research (Lee, Yung & Yoon, 2019). The seventh method is thinking-based learning, a model pioneered by Schwartz et al. (2010) who argue that critical and creative thinking should be practiced and cultivated within the confines of the curriculum. This model might be correlated with critical thinking skills endorsed in the P21 framework. As to pronunciation, the model might be utilized for teaching suprasegmental features when teachers ask learners to work

in groups to analyze the speech of people in a given dialogue and illustrate the placement of stress, pitch, and juncture using visual speech analysis programs, such as IBM SpeechViewer (<https://www.ibm.com/common/ssi/>) PRAAT (<https://www.fon.hum.uva.nl/praat/>) and Audacity (<https://www.audacityteam.org/>). Last but not least, teachers might utilize competency-based learning that employs a set of strategies for learners to acquire knowledge, develop skills, and establish work habits (Realinfluencers, 2019). To put differently, teachers help learners to acquire competencies on a particular subject. Applied to pronunciation, a prospective competency, for instance, might be the acquisition of phonetic transcription skills by language teachers in accordance with international teaching standards (see TESOL, 2019).

Following the selection of methodology, practitioners might now move on with materials selection and development. It goes without saying that language teaching materials in the 21st century should promote the 4C's and utilize ICT technologies. In addition, they need to be adaptive to diverse learning environments, such as face-to-face and virtual. One issue that requires consideration here might be the exploitation of textbooks. Given their significance (Richards, 2015), textbooks are hard to be deserted. International textbook series now have digital components with which teachers might project them on the board. That might not pose any problems for teachers; however, previous research revealed disfavor for e-books on part of students (Woody, Daniel & Baker, 2010). This might imply that the use of paper-based textbooks might show contextual variations. Another concern that needs to be addressed here is the integration of ICT technologies in materials because today's learners are referred to as "digital citizens" (Prensky, 2001, p.) and the incorporation of such materials might be motivating for them. A third concern might be the inclusion of aspects of gamification in materials. Language learners today might be claimed to have shorter attention spans (Tseng et al., 2019); they get distracted easily. For that reason, engaging and entertaining materials should be integrated into classes (in our case, pronunciation ones). Another issue to be considered might be, related to the previous one, the incorporation of such diverse materials that would address to the needs of different learner styles, including auditory, visual, kinesthetic, or linguistic. Especially with advanced technologies such as virtual reality (VR) and augmented reality (AR), the implementation of such materials might be claimed to have facilitated. Pronunciation materials for kinesthetic learners might, for instance, include VR- and AR-enhanced programs or apps that contain pronunciation practice for individual learner needs (e.g. /e/ and /æ/). Last but not least, the materials developed concordantly with the P21 framework might also include informative, instructional, experiential, eliciting, and exploratory characteristics (Tomlinson, 2012, p.143).

With regard to assessment, there are global efforts for setting, monitoring, raising, and reporting on standards (Maxwell, 2009). This means that setting the standards for effective assessment might alone be inadequate; there is also a need for maintaining them throughout the learning/teaching process. Assessments can assist instructional improvement and promote student learning in the classroom, as well as provide evidence for accountability review at the classroom, school, or provincial/national levels, and monitor system performance (Vista, Kim & Care, 2018). In addition to the conventional methods for assessment (e.g. formative and summative), the 21st century skills might be assessed via embedded and game- and task-based assessment. A problem with assessment nowadays, despite the efforts for improvement, is to assess the skills in the classroom (Care, Anderson & Kim, 2016). Just as the requirement for teaching to be adaptive, assessment of skills should also encompass beyond-the-classroom methods of evaluation. However, the transition from conventional to 21st century-based assessment might be tough. The new methods of assessment should therefore be aligned with the existing system (Care et al., 2018). Applied to pronunciation, learners' competence of stress placement in individual words might be assessed via single-player games whereby they are asked to pronounce the target lexical items, in case of failure, might not proceed in the game.

The last component in the framework is teaching, by which the learning/teaching processes are implied. Since all components are interconnected and interdependent, teaching styles might thus vary from teacher to teacher and from context to context. The 21st century means change for teacher roles as well. 21st century teachers should therefore encourage and facilitate student learning and creativity so that all learners succeed in today's world, allow students to get the most out of their formal and informal learning opportunities, promote learning in manifold modalities, work as productive members of learning groups, improve student engagement and accomplishment by utilizing the entire spectrum of digital-age technologies, co-create new learning possibilities with their students, exploit data to assist with student learning program enhancement, and be lifelong learners and global educators (Ledesma, 2011). Given these teacher qualities, the other components in the framework might concordantly be organized.

Overall, the framework proposed here for the implementation of pronunciation in the 21st century in line with the P21 framework constitutes six interrelated and adaptive teaching elements that might be applied to all teaching contexts. The descriptions of the components were made concisely and relevant empirical foundations were presented for their selection. Possible scenarios for each component were provided for pronunciation as part of 4C's (in particular, communication).

4. Discussion, Implications and Conclusions

The present research aimed to tackle pronunciation teaching as part of communication skills within the framework of 21st century skills. It therefore intended to present its relationship with the P21 framework and more importantly provided language teachers and educators with a model framework of implementing pronunciation teaching within the 21st century skills. The six components of the proposed framework were formulated based on the elements of language curriculum (i.e. needs analysis, determination of objectives, selection of methodology, materials selection/development, assessment, and teaching) previously outlined by Brown (1995). Each component in the suggested framework was then associated with the P21 framework, followed by research-grounded teaching suggestions for how to conduct the activities required for the implementation of the relevant component.

The workforce requirement survey conducted by P21 indicated the need for foreign languages as one of the basic knowledge/skills and oral communications as one of the applied skills. English is included among the core subjects to be taught, and communication is listed under learning and innovation skills. Given the status of English as a global lingua franca or international language (House, 2014), the salience of pronunciation for sound communication (Levis, 2018), and the continuity of pronunciation (both segmentals and suprasegmentals) as a problem for learners of manifold linguistic backgrounds (see the citations in section 3), it is plausible to assert that pronunciation maintains its considerable significance in the 21st century. No distinction between learners and teachers concerning the significance of pronunciation was made earlier; however, it might be claimed that the related communication component assumes significance for both stakeholders. It even attaches additional salience for teachers given that language teachers present role models for their students (Richards, 2015) and linguistic proficiency in the target language is a quality suggested in international frameworks for teaching standards, such as the European Profiling Grid (Mateva, Vitanova & Tashevska, 2011) and the Standards for Initial TESOL Pre-K–12 Teacher Preparation Programs (TESOL, 2019).

Certain important points about the changing roles for the 21st century learners and teachers are also worth mentioning here. Today's learners are considered "digital citizens" (Prensky, 2001) meaning that they were born into technology. In addition, they are globally aware self-directed learners, innovators, information and media literates, collaborators, critical thinkers, problem-solvers, and

communicators. Teachers should therefore consider these characteristics when planning their pronunciation lessons. On the other hand, the roles of teachers have changed to address to the needs of 21st language learners. Teachers no longer only transfer knowledge but serve as a guide for learners through collaboration. They also need to be tech-savvy, exploiting digital resources for language teaching (here pronunciation instruction). In addition, they are content experts and instructional leaders equipped with a thorough command of pronunciation and organizing pronunciation features according to learners' needs and interests. They further are lifelong learners reflecting on their teaching experiences and building on these in their prospective teaching practices. These changes in roles on both stakeholders might imply reconsideration of the teacher education curricula to cultivate more prepared well-equipped language teachers in the 21st century.

Several pedagogical implications might also be cited here. To begin with, the needs of learners have changed in this century thus the teaching methods. In line with the proposed framework, language teachers might identify the learner needs that might exhibit local and contextual variations. Based on the needs, the objectives might subsequently be established. Following the determination of objectives, language teachers might choose from among the methodologies conducive to 21st century teaching presented in the study. Next, appropriate materials (preferably technology-enhanced) might be selected or developed. Materials should particularly incorporate aspects of gamification. Learners in this century might be assessed via mobile- and computer-assisted education tools that provide instant feedback, such as Plickers (<https://get.plickers.com/>). These imply changes in the teaching process as well. Language teachers should therefore take all this into consideration in their teaching practices. It must also be reminded here that the content of language classes (particularly pronunciation) should be grounded on CALL, CAPT, and MALL theoretical frameworks. To this end, linguistic contents should preferably be appropriate for bit-sized learning given the short attention span of learners (Tseng et al., 2019). Considering the inclination of language education toward digitalization, the integration of technological pedagogical content knowledge (TPACK) might, for instance, be emphasized. Additionally, pronunciation instruction might be attached particular attention in view of its salience for effective communication (as part of 4C's). Furthermore, both learners and teachers should develop phonetic literacy that refers to the ability to read and write the sounds in the target language.

Despite all these, it might not be easy to implement the changes required for 21st century learning and teaching since teachers might resist to change in methodologies and materials, have limited access to or lack of resources, and experience classroom management issues such as reduced learner participation (Anagün, 2018; Bond, 2020; Guthrie, 2011; McKnight et al., 2016). Some solutions to these problems might be the involvement of teachers in decision-making processes with regard to curriculum, the reconsideration of preservice and in-service teacher training programs, the revision of teacher education curricula as regards teacher qualifications (to cultivate digitally literate and tech-savvy teachers), and utilization of various techniques to increase learner involvement, such as preparing bit-sized, entertaining and engaging language content incorporating mobile and computer technologies.

Overall, this research concludes that pronunciation is a salient component to successful communication as part of 4C's of P21 framework and still maintains its significance in the 21st century given the existing problematicity of pronunciation features across diverse linguistic contexts. The proposed framework for implementing pronunciation teaching is hoped to assist teachers with practicable and research-based suggestions and hopefully contribute to 21st-century-appropriate pronunciation instruction thanks to its relationships and associations with the P21 framework. It must however be borne in mind that this framework is solely a suggestion therefore requires empirical implementation in authentic classroom contexts so that its effectiveness might be revealed.

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