



21st-century Skills Frameworks and Skills in ELT: A Systematic Literature Review

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Abstract

The rapid advancement of science and technology has demanded the development of 21st-century skills, which are essential for employability and success in a complex human society. This systematic literature review examines 21st-century skills frameworks exploring the most researched skills in the context of English Language Teaching (ELT). Following the PRISMA guidelines, the study analyses 61 articles, six dissertations, and four conference proceedings published between 2013 and 2024. Findings reveal that the Partnership for 21st-century Skills (P21) framework is the most widely researched; however, many researchers combine elements from multiple frameworks, such as Assessment and Teaching of 21st-century Skills (ATCs21) and OECD models. Among the emphasized skills, the 4Cs: Critical Thinking, Communication, Collaboration, and Creativity, are the most frequently researched, followed by ICT literacy, initiative, self-direction, and social and cross-cultural skills. The study highlights the importance of incorporating these skills into English Language Teaching (ELT) to equip learners for global challenges. The study suggests that it is necessary to consider contextual variations in skill prioritization. Since this study only included ELT-related research, future research should explore interdisciplinary perspectives and localized adaptations of the 21st-century frameworks and skills.

Keywords: 21st-century skills, 4cs, p21 framework, soft skills, systematic review

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Introduction

The continuous development of science and technology has led to changes in the skills that individuals need to possess. Since the inception of human civilization, acquiring and applying vital skills necessary for survival and existence have been fundamental. The concept of "survival of the fittest" underscores the importance of life skills. Over the past twenty-five years, numerous educational institutions and international organizations have introduced frameworks and identified skills essential for navigating the challenges of the 21st-century.

The workforce in the 21st-century is expected to possess not only hard skills but also soft skills for getting rewarding jobs and a successful life. There are specific skills necessary for complex societies of the 21st-century that determine employability.

The concept of '21st-century skills' emerged as a response

to the changing landscape of work and society in the late 20th and early 21st centuries. The term "21st-century skills" gained prominence in the early 2000s, particularly in education policy discussions and initiatives. In the field of education, the term "21st Century skills" is often referred to as 'soft skills', 'life skills', 'employability skills', 'transferable skills', 'key skills', 'applied skills', 'social skills' etc.

In the globalized world where information and communication technologies (ICTs) are growing rapidly, these technologies are transforming people's daily lives and the world. As technology advanced and globalization accelerated, there was a growing recognition that traditional education systems were not adequately preparing students for the challenges and opportunities of the modern world. Thus, it is crucial to use information rather than merely access it, because newly grown individuals cannot ensure their socialization, global citizenship, or survival by being passive consumers of knowledge; rather, they need to



produce knowledge themselves (Koçak & Göksu, 2020).

At present, globalization, neoliberalism, scientific innovation, and a knowledge-skills-based economy have changed human life by increasing competition and making jobs more complex, demanding higher levels of cooperation and social networks (Hargreaves, 2003; OECD, 2018). In conjunction with various professions, language teachers face the intricate responsibility of imparting to students not only conventional content knowledge but also other skills within the context of a globalized world (Trilling & Fadel, 2009). Consequently, language teachers must possess a repertoire of skills to adeptly engage with students and other stakeholders within the school and beyond Partnership for 21st-century Skills (P21, 2019). The development and practice of real-world skills, synonymously termed 21st-century skills, are strongly connected to students' participation in real life (Darling-Hammond et al., 2020). They have been related to the meaningfulness of learning and increased student engagement during learning experiences (Newmann et al. 1992).

The 21st-century skills represent a basic skill set in the educational sphere. A good teacher cannot solely base their teaching on content knowledge but must be able to integrate this classroom teaching with adequately developed skills, such as learning and innovation skills, information, media, and technology skills, as well as life and career skills (Partnership for 21st-century Skills, 2010). The 21st-century skills are "the skills that are required by an individual for his/ her holistic development so that he/she can contribute to the progress and development of his society/ nation and world" (Central Board of Secondary Education [CBSE] 2020, 12). In this regard, these skills are necessary for students to adapt themselves to this competitive and market-oriented world. In short, in our context, integrating 21st-century skills into English language teaching (ELT) and learning can be a mutually beneficial solution that benefits both teachers and students. In this regard, the national and international practices of integrating 21st-century frameworks and skills in the ELT classroom can be insightful in our context.

Different organizations have prepared reports recommending different frameworks for 21st-century skills; some of the efforts were the Delors Report (1996), EnGauge 21st-century Skills (2002), the Organization for Economic Co-operation and Development [OECD] (2005), Partnership for 21st-century Skills (P21) (2006), Assessment and Teaching of 21st-century Skills [ATCs] 21st (2012), and others. Similarly, these frameworks encompass loosely related skills, including creativity, critical thinking, communication, collaboration, information literacy, media literacy, technology literacy, flexibility and adaptability, initiative and self-direction, social and cross-cultural skills, productivity and accountability, leadership and responsibility, as well as local and global citizenship, values and ethics, and so on.

In the ELT context of Nepal, I could not find a systematic literature review reviewing 21st-century skills. In this regard,

this study aims to review the most common frameworks of 21st-century skills and highly researched skills in relation to English language teaching and learning.

Research Questions

This review focuses on the context of school education and investigates the following research questions:

- Which proposed frameworks are most cited by researchers interested in 21st-century skills?
- Which of the 21st-century skills are mostly emphasized and researched in the context of English language teaching?

Theoretical Background

There are several theories and terminologies related to 21st-century skills. The following section subsumes highly influential theories and terminologies.

Conceptualizing 21st-century Frameworks

The era marked by globalization, digital media, ongoing technological advancements, use, and immediate access to endless information has largely transformed the socio-economic and educational settings of the 21st-century (Trilling & Fadel, 2009; Voogt & Roblin, 2012). Before the 19th century, education had a limited scope and accessibility. Then, it simply served religious and elite functions. As in the ancient era, knowledge is no longer holy or static; rather, it is dynamic, networked, and rapidly evolving (Castells, 2010). Subsequently, the Industrial Revolution steered the education system toward specific academic and professional skills. The education systems of the 21st-century are expected to move beyond content transmission and preparation of citizens who possess adaptability, innovation, social responsibility, and can navigate complexity and uncertainty (OECD, 2018). In this regard, 21st-century Skills refer to the abilities that are essential for individuals to tackle the challenges of the 21st-century, which include being competitive, digitally informed, collaborative, creative, socially aware, and quick to adapt to change (Binkley et al., 2012).

Within these circumstances, the 21st-century has brought in a novel perspective on the essential skills imperative for students to attain academic and personal life success. Numerous educational and professional institutions have proposed various frameworks encompassing a bundle of skills and sub-skills, accounting for contemporary socio-economic conditions (Voogt & Roblin, 2012). Within the literature, these frameworks commonly serve as foundational elements for discussions about educational theory, policy, and practice. However, the spread of frameworks has led to conceptual overlap and terminological ambiguity, which depends on institutional perspectives that subsequently impact the evolution of both theoretical concepts and practical applications. In the discussion of relevant texts, I have critically analyzed and synthesized the frameworks alongside their interpretations within the specific context of

school-level education.

The significant disparities between past and present circumstances of the societies suggest varying educational necessities. It is vital to reconcile students' real-world contexts with their classroom experiences. A report published for UNESCO by Delors (1996) presented four recommended pillars for the education of the new century: *learning to know, learning to do, learning to live together, and learning to be*.

In 2002, the North Central Regional Educational Laboratory issued a report entitled "engage 21st-century Skills: Literacy in the Digital Age" based on two years of research. The framework has been drawn from EnGauge 21st-century skills (2002), which states four primary skills: *digital age literacy, inventive thinking, effective communication, and highly productive skills*.

Similarly, member countries of the Organization for Economic Co-operation and Development [OECD] (2005) prescribe three major dimensions for 21st-century skills, namely *using tools interactively, interacting in heterogeneous groups, and acting autonomously*.

In addition to this, the Assessment and Teaching of 21st-century Skills [ATCs] 21st (2012) framework has also been consulted during the study. It categorizes competencies into **Ways of Thinking**, including creativity and innovation, critical thinking, problem-solving, decision-making, and metacognition; **Ways of Working**, including communication and collaboration; **Tools for Working**, including information literacy and information technology and communication literacy; and **Living in the World**, encompassing life and career skills, as well as personal and social responsibility.

Moreover, the insight has been extensively taken from the Partnership for the 21st-century (P21), which outlines three primary skill domains as articulated in P21 (2006, 2007, 2010): **learning and innovation skills** encompassing critical thinking and problem-solving, communication, collaboration, creativity and innovation; **information, media and technology skills** encompassing information literacy, media literacy, and ICT literacy; and **life and career skills** encompassing flexibility and adaptability, initiative and self-direction, social and cross-cultural skills, productivity and accountability, and leadership and responsibility.

Partnership for 21st-century Learning (P21) (2009)

The recognition and integration of 21st-century skills within educational contexts first emerged within the United States but have spread to various other nations, including Canada, the United Kingdom, and New Zealand.

Components of 21st-century Skills

Several initiatives worldwide have emerged to promote the learning and teaching of the 21st-century framework and skills. Different organizations have prepared reports recommending different frameworks and skills for the 21st-

century. In this context, the main 21st-century skills are discussed here.

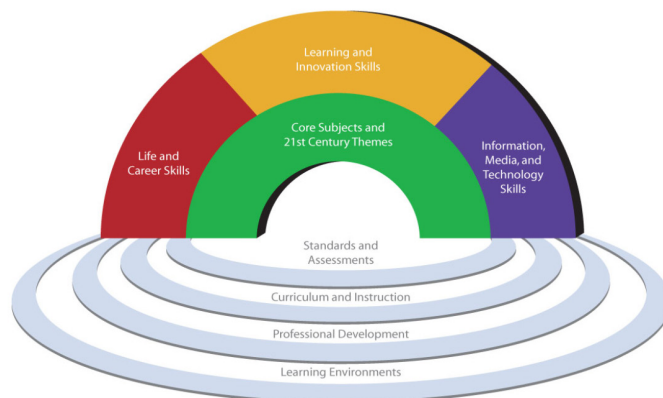


Figure 1: 21st-century Student Outcomes and Support Systems

Critical Thinking

Critical Thinking is the ability to engage in analytical reasoning and problem-solving with a reflective and rational mindset. Critical Thinking encompasses accessing, analysing, and synthesizing information, which can be taught, practiced, and mastered (Partnership for 21st-century Skills, 2015; Redecker et al., 2011). Similarly, Hixson et al. (2012) also proposed a comprehensive definition of critical thinking. For them, critical thinking skills refer to "students being able to analyse complex problems, investigate questions for which there are no clear-cut answers, evaluate different points of view or sources of information, and draw appropriate conclusions based on evidence and reasoning" (p.8). Additionally, critical thinking depends on other skills, such as communication, information literacy, and the ability to examine, interpret, and evaluate evidence. Belmont (1991) emphasised that critical thinking integrates metacognition, general problem-solving methodologies, and specific heuristics to cultivate students' skills in diverse contexts. Facione (2015) pictorially presents the core elements of critical thinking as in Figure 2:



Figure 2: Core Critical Thinking Skills

Facione (2015, p. 5)

By synthesizing these perspectives, critical thinking can be defined as a skill set that empowers individuals to

face challenges, evaluate evidence, and construct logical arguments informed by theoretical frameworks and practical experiences.

Collaboration

Collaboration skills refer to students' ability to work together to solve problems, answer questions, and achieve a common goal (Hixson et al., 2012). These skills involve communicating effectively, respecting diverse perspectives, and contributing meaningfully to group efforts. Collaboration also involves working in pairs or small groups to complete a task collectively, demanding effective communication and shared responsibility. Similarly, collaboration requires each student to share responsibility and play an active role in completing tasks in the learning process. Students engage in teamwork by setting goals, developing plans, and creating joint products that incorporate contributions from each member (Partnership for 21st-century Skills, 2015). Additionally, collaboration is facilitated by presenting work to the class, teacher, or other audiences and integrating feedback to enhance group tasks, by confirming continuous improvement and quality.

In the 21st century, technological advancements and globalization have reshaped the way we work, collaborate, and learn. Effective collaboration has become an increasingly essential skill for personal and professional development (Laal et al., 2013). Thus, technology is a new sphere in teaching and learning, to ease and enhance our local and distant collaboration.

Communication

In the increasingly globalized world, effective communication has emerged as a vital skill for individuals, professionals, and organizations. The increasing globalization and interconnectedness of the world have made communication a vital tool for handling the complexities of modern life and achieving success in various domains.

Effective communication involves generating ideas and information through oral, written, and nonverbal communication across various contexts. In this context, communication skills include several sub-skills, including listening attentively to interpret meaning, using communication to inform, instruct, motivate, or persuade, using and assessing the effectiveness of multiple media and technologies, and communicating proficiently in diverse and multilingual environments (Partnership for 21st-century Skills, 2015).

Thus, communication skills have become crucial in various activities, from global trade to collaborative endeavours in both the public and private sectors (Manohar & Reddy, 2018).

Creativity and Innovation

In the rapidly evolving 21st-century, the ability to think creatively and innovatively has emerged as a vital skill

for individuals and organizations. There is a pressing need for graduates and professionals who can generate innovative ideas, solve problems, and adapt to changing circumstances as the world and human life become increasingly complex. Therefore, creativity and innovation are essential for individuals to succeed in a knowledge-based economy (Juen, 2019; Hidayatullah et al., 2021). Undeniably, the current educational standard emphasizes the importance of students' ability to find information from various sources, formulate problems, think analytically, and collaborate in solving issues (Hidayatullah et al., 2021). Likewise, these skill sets are essential in the global job market, as the development of new and improved products and services is crucial (Dede, 2010; Voogt & Roblin, 2010).

Innovation and learning skills are now essential for exploring the increasingly complex life and work environments of the modern era. Partnership for 21st-century Skills (2015) has identified creativity and innovation as crucial components of the skills that students must develop to succeed in this dynamic era.

Self-Direction

Self-direction refers to the ability to lead oneself with minimal guidance. It also refers to students' ability to take ownership of their learning by selecting topics of interest, determining their learning processes, and actively evaluating their work (Hixson et al., 2012). Similarly, these skills incorporate responding constructively to feedback, enabling continuous improvement and independent growth. Setting personal and professional goals, planning and managing time effectively, and maintaining motivation to achieve those goals are also subsumed under self-direction. Self-directed individuals are lifelong learners who search for resources and opportunities for personal growth and development.

Self-direction permits individuals to set and follow their own goals, remain motivated without external supervision, and continually pursue personal and professional development. A self-directed individual can assess and initiate work independently. Self-direction is the drive to take proactive steps, identify opportunities, and act on them without waiting for external motivation. Individuals with strong self-direction are often characterized by their resourcefulness, creativity, and willingness to take risks. Self-directed learners take the initiative to acquire skills for professional proficiency, commit to lifelong learning, and reflect on past experiences to guide future progress. Partnership for 21st-century Skills (2015) illustrates self-direction as the fundamental skill that involves actively exploring learning opportunities to develop expertise, taking the initiative to advance toward professional proficiency, committing to lifelong learning, and critically reflecting on experiences to guide future growth.

Making Global Connections

The rapidly changing global landscape is characterized by extreme interconnectedness and diversity. For Trilling

and Fadel (2009), "Understanding and accommodating cultural and social differences, and using these differences to come up with even more creative ideas and solutions to problems, will be increasingly important throughout our century" (p.80). The demand for strong social and cross-cultural skills in the 21st-century has become increasingly crucial, particularly in English language teaching (ELT). It enables the development of a wide-ranging set of skills in teachers to effectively navigate and engage with students from various cultural and linguistic backgrounds (Van Laar et al., 2017).

Global connections involve reviewing information about various countries and cultures and integrating diverse perspectives to develop a broad understanding of the world (Shrestha, 2016). Global connections include examining global interconnection through issues such as culture, geography, economy, politics, international trade and business, and environment, emphasising how nations depend on one another. Exploring different cultural backgrounds also nurtures broad cross-cultural awareness. Additionally, studying the geography of other regions enhances comprehension of the way physical landscapes shape societies and global interactions. In this way, learners can understand the interrelated nature of the world, connecting global issues with their own experiences of local challenges. This understanding encourages learners to be responsible global citizens, enabling them to engage rationally with international challenges and contribute to a sustainable future.

In English language education, the cultivation of social and cross-cultural competencies has emerged as a critical component in preparing students for success in the 21st-century (Zhou et al., 2024). Language teachers must identify their responsibility to convey language skills and impart to learners the necessary skills to succeed in an increasingly globalized world. According to UNESCO (2014), global citizenship education is guided by four key objectives. First, it encourages students to critically examine real-life issues and develop creative solutions. Second, it supports students in reassessing major assumptions, worldviews, and power structures while fostering acceptance of marginalized groups. Third, it inspires personal and collective actions to drive meaningful change. Lastly, it underlines collaboration by engaging various stakeholders, including those beyond the classroom.

Making Local Connections

Making local connections can be defined as applying what students learn to the local situations and their communities (Hixson et al., 2012). Integrating local issues into the learning in general and the English language in particular enhances relevance (Scott, 2015; UNESCO-IBE, 2018) by connecting students' learning to their real-life experiences.

In education, local connections include engaging students with topics or issues related to their culture, lifestyle, family, community, and nurturing a deeper understanding of the

real world. By exploring local or indigenous knowledge, students can apply their knowledge to address burning issues, making their education more meaningful and relevant (Shrestha, 2016). This process may involve discussions with community members, allowing students to gain diverse perspectives and perceptions that enrich their understanding of the topic. Ultimately, integrating indigenous knowledge in English language learning increases academic outcomes and nurtures a sense of community bonding and social responsibility.

Using Technology as a Tool for Learning

Using technology as a tool for learning refers to the students' ability to manage their learning and create outputs using suitable information and communication technologies (Hixson et al., 2012). Using technology as a tool for learning is a crucial component of 21st-century skills, essential for exploring the complex, interconnected, and rapidly developing world. These skills enable individuals to effectively gather, analyze, and utilize information, engage with media critically and creatively, and use technology to communicate and solve problems (Bolat, 2022).

Using technology as a tool for learning includes Information Literacy, Media Literacy, Information and Communication Literacy (ICT). Information literacy includes recognizing when information is needed and locating, evaluating, and effectively using the needed information (Partnership for 21st-century Skills, 2010). For Trilling and Fadel (2009), information literacy includes accessing information efficiently and effectively, evaluating information critically and competently, and using information accurately and creatively.

Similarly, media literacy is the ability to access, analyse, evaluate, create, and act using all forms of media. It involves understanding the role of media in society, recognizing the influence of media messages, and developing the skills to produce and share content responsibly. Likewise, ICT literacy uses digital technology, communication tools, and networks to access, manage, integrate, evaluate, and create information.

Methods

This article is based on the results of a systematic literature review of 21st-century skills frameworks and skills.

Systematic Literature Review

The systematic literature review was chosen for this study since it can contribute to a synthesis of the existing academic literature in a reliable and accurate manner (Van Laar et al., 2017). Additionally, in this study, I systematically examined articles related to 21st-century skills and English language teaching. The systematic literature review adhered to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) approach as outlined by Moher et al. (2015).

Search Terms

The search was conducted across Academia, Google Scholar, and ERIC databases, collectively encompassing a broad spectrum of education-related articles. The primary search terms employed were “21st OR twenty-first-century skills” AND “primary OR secondary education.” Similarly, a variety of similar terms that are often used interchangeably in the literature were also used. Specifically, concerning the concept of “21st OR twenty-first-century skills,” alternative terms such as “21st OR twenty-first-century competencies”, “21st-century skills in English language teaching”, “21st-century skills in English language learning”, “21st-century skills in English language curriculum,” and “21st OR twenty-first-century literacy” were included in the search criteria.

Selection Criteria

The selection criteria presented in Table 1 were determined before the database search and were applied during the screening of the text’s titles, abstracts, and whole texts.

Table 1: Inclusion and Exclusion Criteria

Type of Criterion	Criteria	Inclusion	Exclusion
Type of publication	Journal articles	√	
	Conference papers	√	
	Reports		√
	Dissertations	√	
	Books		√
Access	Online	√	
	Paper		√
Publication period	2013-2024	√	
Place of publication	Worldwide	√	
Type of study	Empirical	√	
	Theoretical	√	
Research methods	Qualitative	√	
	Quantitative	√	

Table 3: Texts by the Year of Publication

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
N	3	2	1	1	2	5	5	11	9	11	7	4

The eligibility criteria permitted the examination of publications spanning from 2013 to 2024. The database search yielded results indicating a slight increase in research publications over time. Analysis of the data revealed that the highest number of texts was published in 2020 and 2022, with 11 publications each. Conversely, the lowest number of publications was observed in 2015 and 2016, with only one publication each.

Results

Findings Related to Research Question 1

The initial phase of analysing the reviewed texts concentrated

Selection criteria are based on the types of publication, access, publication period, place of publication, types of study, and research method. Exclusion criteria mostly include unrelated, duplicated, unavailable full texts, or abstract-only papers, reports, books, and hardcopy. These exclusions should be stated in advance to prevent the researcher from bias. For the study, I set ten inclusion criteria: (a) journal articles, (b) conference papers, (c) dissertations, (d) only online materials (e) text published between 2013-2024, (f) text published worldwide, (g) empirical research, (h) theoretical research, (i) qualitative research, (i) quantitative research.

The search action yielded 289 articles related to the integration of 21st-century skills in English language teaching from the Boolean search. Additionally, the reference section of the downloaded articles was consulted to identify new articles. Of the 289 articles, 99 were duplicates, leaving 194 articles to be screened. After reviewing the titles and abstracts, 61 articles met all of the research’s inclusion criteria.

Sample Analysis

The sample incorporates 61 articles, 6 dissertations, and 4 conference proceedings. The distribution of texts, as per the research approach, is shown in Table 2.

Table 2: Texts as a Type of Research Approach

Qualitative	Quantitative	Mixed-Method
28	15	18

Based on the research approach, the majority of 28 articles were carried out following the qualitative research approach, 18 followed the mixed-method approach, and 15 adopted the quantitative approach. The highest research trend is in the qualitative approach.

Table 3 presents the outcomes of a worldwide database search conducted from 2013 to 2024. The study adhered to specific inclusion criteria, exclusively encompassing articles about 21st-century skills and English language teaching and learning.

on delineating the 21st-century skills used by the researchers as the foundation for their study. Predominantly, the researchers followed the definitions given by frameworks developed by different educational or employment-related institutions.

The research found that among 61 studies, 25(40.98%) utilized the P-21 framework, 3 used ATC frameworks, and 28 (45.90%) combined various frameworks. The rest used different frameworks for 21st-century skills. Most commonly, researchers blended the P-21, ATC, and OECD models to provide theoretical understanding and describe skills.

Based on the findings, it can be concluded that the Partnership for 21st-century Skills (P-21) is the most favoured single framework overall. However, most of the researchers did not follow a single framework; they blended the skills from many frameworks. Following P-21, both ATC and OECD frameworks are also commonly preferred and cited a lot.

Table 4: Highly Cited 21st-century Skills Framework

The P-21 Framework for 21st-century
Learning and Innovation Skills (Critical Thinking and Problem solving, Communication, Collaboration, Creativity and Innovation, Information, Media, and Technology Skills (Information Literacy, Media Literacy, ICT Literacy), Life and Career Skills (Flexibility and Adaptability, Intelligence and Self-Direction, Social and Cross-cultural Skills, Productivity and Accountability, Leadership, and Responsibility
ATCs21 (2012)
Ways of Thinking (Creativity and Innovation, Critical thinking, problem-solving, decision making, Learning to learn, Metacognition), Ways of working (Communication, Collaboration (teamwork)) Tools for Working (Information literacy ICT literacy), Living in the World (Citizenship-local or global, Life and career, Personal and social responsibility-including cultural awareness and competence,
OECD (2005)
Using tools interactively (language, symbols, texts, knowledge, information, technology), interacting in heterogeneous groups (relate well to others, cooperate, work in teams, manage and resolve conflicts), acting autonomously (act within the big picture, form and conduct life plans and personal projects, defend and assert rights, interests, limits, and needs)

Table 5: Mostly Cited 21st-century Skills

S.N.	21 st Skills	Frequency (Position)	Percentage
1.	Critical thinking and problem-solving	60 (i)	98.36
2.	Communication	49(iv)	80.32
3.	Collaboration	56(ii)	91.80
4.	Creativity and innovation	55(iii)	90.16
5.	Information literacy	17(ix)	27.87
6.	Media literacy	14(xi)	22.95
7.	ICT (Information and Communications Technology) literacy	33(v)	54.09
8.	Flexibility and adaptability	16(x)	26.22
9.	Initiative and self-direction	24(vi)	39.34
10.	Social and cross-cultural skills	20(viii)	32.79
11.	Productivity and accountability	14(xi)	22.95
12.	Leadership and responsibility	21(vii)	34.42
13.	Local and global citizenship	7(xii)	11.47
14.	Ethical/moral values	4(xiii)	6.55
15.	Entrepreneurship	1(xiv)	1.64

Discussion

This systematic literature review offers an overview of empirical research related to 21st-century skills. The classification presented in the findings section is hardly precise and concrete since several skills could conceivably fit into multiple categories as per their interpretation. As previously noted, the ambiguity inherent in the terminology further complicates discussions of 21st-century skills. In

Findings Related to Research Question 2

According to the research question, I listed all the 21st-century skills identified in the study. In total, I found 15 skills, which are detailed in Table 5.

Table 5 illustrates that a predominant focus was placed on the investigation of the 4Cs, namely, Critical Thinking and Problem Solving (98.36%), Communication (80.32%), Collaboration (91.80%), and Creativity and Innovation (90.16%) within the English Language Teaching (ELT) research. Similarly, secondary attention was directed toward other skill domains, such as ICT (54.09%), Initiative and Self-direction (39.34%), Leadership and Responsibility (34.42%), Social and Cross-Cultural Skills (32.79%), and Flexibility and Adaptability (26.22%), which were moderately examined in the studies. Skills receiving comparatively less emphasis included Productivity and Accountability (22.95%), Local and Global Citizenship (11.47%), Ethical and Moral Values (6.55%), and Entrepreneurship (1.64%).

The study suggests that, in addition to the 4Cs (Critical Thinking, Communication, Collaboration, and Creativity), skills are highly researched in the areas of English language teaching and learning. Similarly, information literacy, media literacy, ICT, Initiative and Self-direction, Leadership and Responsibility, Social and Cross-Cultural Skills, Flexibility and Adaptability, and Productivity and Accountability are moderately emphasized. Equally important skills, such as Local and Global Citizenship, Ethical/Moral values, and Entrepreneurship, are the least researched in the English language teaching and learning field.

general, the frameworks provided for 21st-century skills appear to be largely consistent with one another, as they all assert that the skills and abilities individuals need in the 21st-century must differ from those required for life, work, citizenship, and personal fulfilment in the 20th century (Fandiño Parra, 2013).

The first finding of the research question is that 'The P21 skill framework is one of the most widely used frameworks

in educational research. It is crucial to note that the P21 skill framework is implemented in 21 states and supported by 33 institutions in the USA (Kıyıkçı & Özyurt, 2023). But this model has been criticized for offering a broad range of categories of skills lacking clear, measurable boundaries (Rotherham & Willingham, 2009). Similarly, it is further criticized for carrying neoliberal assumptions that prioritize preparing the workforce over liberation and the formation of the learners. This popularity is not conceptual supremacy; it may be because of convenience and institutional legitimacy. Similarly, half of the studies combined multiple frameworks. It can be interpreted as an attempt to attain conceptual completeness. The existing literature suggests that such eclecticism commonly results in conceptual dilution and analytical inconsistency (Binkley et al., 2012). Thus, an explicit rationale may justify the combination of frameworks theoretically and assist in operationalizing empirically. The lack of uniformity is a structural weakness of 21st-century skills research, creating disparity in interpretations and comparability among studies (Ananiadou & Claro, 2009). The judicious application of frameworks across diverse educational settings as per their education, culture, and institutional contexts seems necessary. Otherwise, it will be policy borrowing without contextual grounding (Tikly, 2011). But the supporters of humanistic education theories, such as critical pedagogy and socio-cultural learning theorists, opine that the so-called popular skills frameworks only emphasize employability and economic competitiveness, not the democratic agenda, ethical judgement, and identity quest (Biesta, 2010; & Giroux, 2014).

The findings of the second research question indicate that the first four vital skills are the 4Cs (Critical Thinking, Communication, Collaboration, and Creativity), which are in order. For Glinel (2020), the most significant skill category was "Communication and Collaboration," and the second and third most frequently recognized skill categories were "Problem Solving and Critical Thinking" and "Self-Management, Productivity, and Accountability". In language education, interaction, meaning-making and communicative competence may explain the importance of communication and collaboration (Byram, 2008). But in this research, "Self-Management" and "Productivity and Accountability" are in sixth and eleventh positions, respectively. Similarly, other highly researched skills include ICT, Initiative and Self-direction, Leadership and Responsibility, Social and Cross-Cultural Skills, Flexibility and Adaptability, Productivity and Accountability, and Local and Global Citizenship are considered crucial for 21st-century learners (Shrestha, 2016). Although ICT has moderate representation, it is relatively lower in emphasis as digital communication and online learning are at the centre of education at present. Scholars like Lankshear and Knobel (2015) believe that digital skills should be a central skill rather than a peripheral one. Along the same line, the Partnership for 21st-century Skills (2010) states that the combination of knowledge, skill, literacy, and expertise is specifically necessary for individuals to be successful in

work and daily life. There is a dire need for the integration of 21st-century skills in all spheres of academic disciplines and levels, but school level in general and EFL classrooms, in particular, should offer students opportunities and strategies aimed at acquiring and enhancing various skills, including creativity, critical thinking, collaboration, media literacy, initiative, self-direction, and social and cross-cultural competencies (Fandiño Para, 2013). But the supporters of humanistic education theories, such as critical pedagogy and socio-cultural learning theorists, assert that the so-called popular skills frameworks solely emphasize employability and economic competitiveness, not the democratic agenda, ethical judgment, and identity quest (Giroux, 2011; Norton, 2013). Similarly, the studies show that entrepreneurship skills, which are synonymous with 21st-century skills themselves, are nearly absent. The interesting fact is that entrepreneurship skills are highly emphasized in educational policy, but it is almost invisible in ELT. It shows a lack of consonance between policy and practices in the field of education.

Conclusion

The call for integrating 21st-century skills into school-level ELT classrooms is mandatory and underdeveloped. Based on the findings, I predominantly perceive the 21st-century as a period characterized by technological advancements, globalization, and an intricate human life. Consequently, many educational institutions and researchers emphasize the importance of students acquiring relevant skills and competencies. They are defining and redefining 21st-century frameworks and their skills. However, I conclude that it is necessary to maintain a balance between learners' personal and social needs for their professional success. Thus, a single 21st-century framework and its skills may not fit everywhere. It needs a redefinition of the 21st-century framework according to socio-economic conditions, technological abundance, and the needs and abilities of teachers and learners, as well as overall global exposure. In addition to this, the successful integration depends not only on curriculum integration but also on teachers, assessment practices, and institutional support (Fullan, 2013).

Limitations

The discourses on 21st-century skills include diverse dimensions. It can be approached from various perspectives, including those of professionals, academics, school-level practices, and different educational structures. Due to limitations in resources and time, the inclusion and exclusion criteria set for this review were solely based on ELT. Thus, it is evident that analyzing a single dimension cannot provide a comprehensive study of the concept. Therefore, the presented findings are primarily treated as trends drawn from the existing literature rather than absolute truths.

Further investigation may cover a broader range of interconnected dimensions for a more holistic and in-depth understanding of 21st-century frameworks and skills. Conducting a combined analysis of texts that address the

concept of 21st-century skills from various perspectives may provide an enriched representation of its multifaceted nature.

As the research questions in the current literature review focus on discussing 21st-century skills within the realm of ELT, a small number of texts were unfortunately ineligible for the discussion. This raises the question of whether all skills should receive equal emphasis while teaching the English language. This highlights a research gap relevant for future study. It would be valuable, both theoretically and practically, to examine in detail how the concept of 21st-century skills is approached differently in this context, as students' characteristics such as age, academic level, and needs and objectives.

Implications for the Further Research Agenda

Firstly, it is evident that comprehensive research is necessary to fully understand the spectrum of 21st-century frameworks and their skills for forming policies. Specifically, there is a lack of studies examining why some researchers favour one 21st-century skills framework over another. The reasoning behind the preference for skills, particularly the 4Cs (Critical thinking, Communication, Collaboration, and Creativity), is quite similar. To address this gap, it would be beneficial to explore research on 21st-century frameworks and skills, as it provides a unique perspective.

In this systematic literature review, qualitative, quantitative, and mixed-method research approaches were identified. Future researchers can investigate different methods within these approaches. Future research could focus on technology use, policymakers, educators, donors, and socioeconomic conditions of the participants. Hence, future research could be enhanced by incorporating a large number of samples with a wider range of clusters.

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