Integrating 21st-Century Skills into Foundational English Language Teaching: Insights from Teachers' Practices

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Abstract
The integration of 21st-century skills, Critical Thinking, Creativity, Collaboration, and Communication (4C), alongside digital literacy is essential for equipping students for future educational activities. This study examines the integration of these abilities by foundational-level English teachers into their classroom activities. Data were gathered from four English teachers utilizing a qualitative case study design, employing semi-structured interviews and document analysis. The result indicated that teachers developed critical thinking through problem-based tasks and comparative analysis, stimulated creativity via project-based assignments, facilitated cooperation through structured group activities, and improved communication through presentations and peer evaluation. Digital literacy was introduced through the strategic application of online films, educational applications, and monitored internet inquiries. Teachers stated that the use of 4C skills enhanced students' motivation, confidence, and involvement. Nonetheless, they encountered obstacles like time limitations, diverse student skill levels, and limited access to digital resources. Teachers overcame these obstacles by modifying assignments, employing minimal resources, and gradually integrating 4C components into their instruction. The findings highlight the necessity of providing teachers with professional development and tools to optimize the integration of 21st-century skills in English language instruction.

1. Introduction

English Language Teaching is an essential domain in education due to its significance in equipping learners for engagement in a globalized society. English serves as a lingua franca, integrating individuals across cultures and facilitating access to knowledge, technology, and global collaboration. At the foundational level, primary and lower secondary, English instruction develops students' confidence, attitudes, and fundamental abilities that will support their future academic pursuits. When students do not establish competency and engagement initially, these weaknesses become significantly more challenging to address after that. Consequently, investigation into fundamental English education is crucial to prepare learners for future demands. The demands of the twenty-first century have changed the objectives of education. Conventional methods focused on rote memorization and grammatical proficiency are ineffective. Contemporary learners must possess the ability to communicate proficiently, engage in critical thinking, resolve problems, collaborate with peers, and utilize digital resources. These competencies are commonly referred to as 21st-century skills, typically represented by the "4Cs": Critical Thinking, Creativity, Collaboration, and Communication, in addition to digital literacy. Incorporating these abilities into fundamental English instruction guarantees that students acquire not only the language but also the ability to utilize it for advanced cognitive processes and real-world

engagement. However, realizing this integration poses significant challenges. Teachers are required to fulfill curriculum requirements while simultaneously promoting creativity, frequently with constrained resources. Extensive class sizes, limited access to technology, and examination-centric systems increase the challenges, especially in developing nations. With these challenges, numerous educators endeavor to incorporate 21st-century competencies via innovative and contextually relevant approaches. Examining these initiatives is essential for comprehending the practicalities of integration and for formulating ideas to assist teachers via training and policy. In this setting, analyzing how fundamental English teachers incorporate 21st-century abilities is both contemporary and important. This study enhances global discussions on future-oriented education and improves the perspectives of the teachers who apply these advances in actual classrooms.

The framework of 21st-century skills has been extensively examined in educational research and policy as a reaction to the increasing complexities of contemporary society. The "4Cs", Critical Thinking, Creativity, Collaboration, and Communication, are considered essential for student achievement (Cao & Yu, 2023). In recent years, digital literacy has been recognized as a crucial aspect due to the widespread impact of technology in communication and information creation. These competencies combined enable learners to adapt to change, continue lifelong learning, and participate effectively to global communities.

Critical thinking includes the capacity to analyze information, examine assumptions, and assess evidence to formulate reasoned judgments. In English Language Teaching, critical thinking is promoted when students are urged to analyze texts, recognize bias, or contrast viewpoints. For instance, reading comprehension tasks can be expanded beyond literal understanding to include evaluative and inferential inquiries. Hutsalo et al. (2024) states that early involvement in critical thinking fosters reflective habits that enhance decision-making and problem-solving abilities in learners. Fitriani et al. (2022) declare that integrating critical inquiry into classroom practices improves students' autonomous learning abilities and enhances their academic achievement across many subjects.

Creativity implies the ability to think of original ideas, envision potentialities, and produce innovative results. In language education, creativity has a close connection with activities such as narrative composition, role-playing, or multimedia creation. These assignments not only improve verbal fluency but also cultivate pupils' confidence in self-expression. Zenku & Dimovska (2023) contend that creativity is fundamental to communication competence, as genuine language utilization frequently necessitates adaptation to new environments and listeners. Furthermore, project-based learning methodologies have been shown to markedly enhance motivation and retention among young learners (Herlina & Wahira, 2024; Trullàs et al., 2022)

Collaboration is the capacity to work efficiently with others, distribute duties, and negotiate understanding. Collaborative learning in the English classroom occurs via group discussions, peer feedback, and cooperative projects. The advantages of collaboration extend simple language practice; students also develop essential social and interpersonal skills requisite for teamwork in both academic and professional environments. According to Bećirović et al. (2022), cooperative frameworks promote language development and critical interpersonal skills that equip students for future joint efforts. Zhang et al. (2023) cooperative learning theory declare that organized group work enhances academic performance and fosters positive interdependence among students. In fundamental English instruction, collaboration facilitates opportunities for students to learn from their classmates while engaging in authentic communication.

Communication, the fourth C, is arguably the most closely associated with language instruction. It involves conveying concepts with clarity, engaging in active listening, and customizing communications for various circumstances. Effective communication serves as both the objective and the method of English instruction. Foundational-level teachers aim to cultivate students' speaking, listening, reading, and writing abilities to foster real connections. Tavakoli et al. (2023) emphasize that communicative activities such as debates, presentations, and dialogues are crucial for enhancing fluency and confidence. Sein (2022) affirms that fluency is most successfully developed through meaning-focused interaction rather than through mechanical drills. In the digital age, communication includes multimodal formats such as video, audio, and internet platforms, hence expanding the scope of English Language Teaching.

In the end, digital literacy has become an essential element of 21st-century schooling. Digital literacy, defined as the capacity to utilize digital tools for accessing, evaluating, creating, and communicating information, is progressively included into language classrooms. Teachers utilize resources including YouTube videos, instructional applications, and online discussion forums to attract pupils and enhance language acquisition. David (2023) claims that mobile applications in EFL classrooms not only facilitate language practice but also enhance students' understanding of technology's utility for educational objectives. Studies by Kurniawan et al. (2023) emphasize that digital literacy not only improves access to authentic content but also cultivates students' capacity to critically assess online information. In foundational English instruction, where students are acquiring fundamental language abilities, carefully structured digital activities can familiarize them with multimodal learning and equip them for enduring technological engagement.

Integrating the 4Cs and digital literacy into English Language Teaching necessitates a paradigm change from conventional methods to learner-centered, interactive strategies. Teachers must construct classes that beyond just rote memorization and grammatical exercises, incorporating activities that foster higher-order thinking, creativity, collaboration, and genuine communication. This transition is supported by Tineh et al. (2023) which emphasize the necessity of linking language instruction with comprehensive life skills. In countries such as Indonesia, where English is a foreign language, the incorporation of 21st-century skills at the foundational level poses both a challenge and an opportunity: a challenge due to systemic constraints, and an opportunity to equip students with competencies that overcome linguistic barriers.

Recent years have seen a significant increase in research focused on the integration of 21st-century skills into English Language Teaching, highlighting the necessity of aligning language education with essential competencies such as critical thinking, creativity, collaboration, communication, and digital literacy. Nonetheless, these research differ in setting, educational level, and methodology, with the majority not concentrating on foundational learners. An examination of the literature clarifies existing knowledge and identifies areas of weakness.

Critical thinking has demonstrated the ability to improve understanding and independence in language acquisition. Yu et al. (2023) established that explicit instruction enhanced reading and argumentative writing skills in Hong Kong secondary students, whereas Rahmawati Zaimah et al. (2024) discovered that inquiry-based learning fostered autonomy in Indonesian high school students. However, this research has focused on older learners instead of primary-level kids.

Creativity has also been associated with drive and involvement Barton et al. (2024) indicated that creative writing assignments increased learner engagement, while Musfira et al. (2022) demonstrated that digital storytelling improved communication among Chinese university students. However, research at the primary level continues to be limited.

Collaboration has been extensively emphasized in cooperative learning studies. Mendo-Lázaro et al. (2022) illustrated its advantages for performance, Soomro and Arain (2023) discovered that organized peer collaboration enhanced fluency, accuracy, and communicative willingness. However, little data exists regarding the engagement of young learners with poor ability in such tasks.

Communication is fundamental in English Language Teaching, although current research indicates its wider significance within the 4C paradigm. Kim (2023) underscored the significance of role plays and discussions, whereas Oruç (2024) illustrated that oral presentations and dialogues enhanced confidence and speaking abilities. Nevertheless, numerous studies regard communication as an independent ability rather than an integrated competency with others.

Digital literacy has become a central emphasis, with Ricoy & Sánchez-Martínez (2022) highlighting the intentional application of digital tools and the proficiency of teachers. Krochinak et al. (2022) demonstrated that mobile applications enhanced digital awareness among students and teachers by facilitating classroom learning and improving engagement with educational content. Nevertheless, the majority of research focus on older learners, neglecting foundational education where early digital exposure is crucial. Although previous research underscores the significance of incorporating 21st-century skills, significant problems remain: investigations seldom focus on foundational learners, qualitative analyses of teaching classroom methodologies are scarce, and few studies concurrently address all four skills alongside digital literacy. This underscores the necessity for research investigating the comprehensive incorporation of 21st-century abilities in fundamental English instruction.

While an increasing number of studies on 21st-century abilities in English Language Teaching, significant gaps persist. *Primarily*, the majority of research concentrate on secondary or higher learners, neglecting the foundational phase of English instruction. This is a significant oversight, as early exposure in primary and lower secondary education influences motivation, attitudes, and foundational competencies. Although research by Aswirna et al. (2024) highlighted the advantages of critical thinking and creativity for older learners, they neglected the developmental requirements of younger students. *Secondly*, numerous current studies utilize quantitative or quasi-experimental methodologies, frequently prioritizing outcomes such as test scores or fluency. Despite their importance, these techniques overlook teachers' experiential insights in the integration of 21st-century abilities. Granger and Gerlach (2024) contend that qualitative research offers deep understanding into classroom realities; nonetheless, such viewpoints are still few in the ELT literature. *Third*, much of the research investigates specific components of the 4C framework, such as creativity via project-based learning or cooperation through group work, without acknowledging their interrelation. In practice, these abilities function concurrently: students engage in communication during collaboration, employ creativity in problem-solving, and utilize digital tools for critical thinking. A comprehensive methodology is necessary to accurately represent authentic classroom dynamics.

The geographical scope of the investigation is inconsistent. A variety of studies have been undertaken in Western or East Asian contexts, with not many from Southeast Asia, and merely a few from Indonesia. Considering Indonesia's challenges, extensive class sizes, disparate access to technology, and language diversity, foundational-level research can enhance global discourse while offering locally relevant perspectives. Few research have examined how environmental restrictions and teacher agency influence the incorporation of 21st-century abilities. Time constraints, limited resources, and varying student capabilities frequently influence the success of innovations; nevertheless, research seldom investigates how teachers adjust to these conditions.

This study examines the integration of the 4Cs and digital literacy by Indonesian instructors in foundational English courses through a qualitative case study approach. This study enhances theoretical insights into 21st-century teaching and provides practical techniques for maintaining creativity in resource-limited environments by emphasizing teachers' perspectives and daily actions. The investigation explores how foundational-level English teachers incorporate 21st-century abilities into their classroom activities, based on the observed gaps. The emphasis is on the 4Cs, Critical Thinking, Creativity, Collaboration, and Communication, alongside digital literacy, as vital qualities for equipping learners for future requirements. This study emphasizes the foundational period where language learning connects with life skills development, in contrast to much prior research that focuses on secondary or higher learning. The significance of the research lies in its addition to ELT academia and the wider discourse on 21st-century skills. This study highlights the perspectives of Indonesian teachers, demonstrating the local interpretation of global frameworks and the maintenance of creativity in resource-limited environments. The results are anticipated to offer insights not only for Indonesia but also for other developing nations encountering similar circumstances.

2. Method

This research utilized a qualitative case study methodology, appropriate for examining complex educational practices in authentic contexts. The case was characterized as the instructional methodologies employed by English teachers at the basic level in Indonesia as they attempted to include Critical Thinking, Creativity, Collaboration, Communication, and Digital Literacy. This design promotes meaning-making, interpretation, and detailed description, in contrast to quantitative techniques that emphasize generalization. Four English teachers were intentionally chosen based on three criteria: (1) current teaching at the primary or lower secondary level, (2) a minimum of three years of teaching experience, and (3) competency in innovative instructional methodologies. Two participants originated from public schools characterized by substantial class sizes, whereas two others were from private institutions with smaller class sizes. This variation allowed the study to encompass varied perspectives. To maintain secrecy, the teachers are designated as T1, T2, T3, and T4. Semi-structured interviews were used to elicit teachers' experiences. The interview guide covered nine areas: critical thinking, creativity, collaboration, communication, digital literacy, impacts, challenges, strategies, and recommendations. Transcripts were categorized based on themes corresponding to the 4Cs and digital literacy. Codes such as debate tasks (critical thinking) and poster-making (creativity) were put together

into categories and reduced into logical themes. Representative quotations were chosen to represent each concept. To establish credibility, the methods employed were member checking, rich description, audit trails, and triangulation with existing literature.

3. Results and Discussion

3.1 Results

A. Integration of 21st-Century Skills

Teachers indicated employing several methods to incorporate the 4Cs, Critical Thinking, Creativity, Collaboration, and Communication, alongside digital literacy into their English instruction. To foster critical thinking, they went above rote memory and devised exercises that encouraged learners to analyze, evaluate, and articulate. For instance, T1 employed visual prompts: "*I sometimes give pictures and ask them to guess the story, so they must think and explain*." Likewise, T2 prompted students to compare texts and articulate which conveyed a more potent message, and T3 facilitated error analysis to enhance evaluative reasoning. These activities demonstrate that critical thinking may be cultivated at the foundational level through age-appropriate, context-sensitive challenges.

Creativity was developed through activities that provided learners with freedom and opportunities for expression. T3 stated that, "*Students enjoy creating illustrated stories when they can choose their own themes*" whereas T4 discovered that performance projects inspire learners by enabling the use of creativity and comedy. T2 fostered creativity through poster-making, enabling students to think of new terminology while expressing their views. These methods shown that creativity may be fostered not only via sophisticated writing assignments but also through experiential, performative initiatives intended for younger students.

In terms of collaboration, teachers often employed collaborative methods such as group and pair work. T1 stated, ""*I divide them into groups, and each student has a role, like leader, note-taker, or presenter.*" This framework promoted equitable engagement and responsibility. T2 noted that pair work reduced anxiety and fostered peer support, but T4 highlighted that group tasks, such as poster preparation, allowed students to make significant contributions. Collaboration functioned as both a language learning instrument and a method for fostering classroom community.

Communication was improved by oral presentations, storytelling, and debates. T4 emphasized that group presentations enhanced both fluency and confidence: "*When they present group work in front of the class, they practice speaking and build confidence*." T3 noticed that storytelling encouraged students to engage in English conversation in an engaging manner, whereas T1 highlighted that pair dialogues facilitated a greater sense of ease for learners when speaking the language with peers compared to teachers. These data emphasize that communication skills were integrated across various school activities.

At some point, digital literacy was progressively included despite limitations in resources. Teachers utilized digital resources not as sophisticated learning platforms but as practical tools. T2 proposed utilizing brief movies to engage attention, but T3 instructed students to seek basic facts online with supervision. T4 integrated interactive applications like Kahoot to enhance the engagement of practice sessions. These examples demonstrate the gradual introduction of digital literacy to bridge classroom learning with students' daily digital contexts.

B. Impact on Students

Teachers regularly noted favorable results from the integration of 21st-century abilities. Students showed increased motivation, confidence, and engagement in class participation. T3 observed, "*They are more active now and less afraid of making mistakes*," indicating an increased readiness to engage in communicative risks. T1 highlighted the importance of involvement, stating, "*Students are more enthusiastic when learning through projects than only from the textbook*." T2 noted improvement in vocabulary retention, stating, "*They remember words better when they use them in group activities*." These insights demonstrate that the integration of 21st-century abilities enhanced both verbal proficiency and emotional aspects, like confidence and enjoyment.

C. Challenges and Strategies

Considering these advantages, teachers encountered numerous obstacles. A significant concern was time constraints, as T4 articulated: "*The curriculum is dense, so it's not easy to add creative tasks*." A further obstacle was the disparity in competency levels among students in the schools. T2 observed,

"*Some students are quick to respond, but others struggle to understand instructions, so group work becomes uneven.*" Limited access to technology presented challenges, particularly at public educational institutions. T1 stated, "*Not all students have devices, and sometimes the internet connection is unstable.* To overcome these obstacles, teachers implemented adaptive strategies. A common strategy was integrating 4C activities with textbook-oriented assignments to fulfill curriculum requirements. T1 stated, "*I mix textbook exercises with small projects, so we can cover the syllabus and still practice collaboration.*" Differentiated instruction was another technique, with T3 giving easier duties to less proficient students and more complex tasks to more capable ones. Teachers also utilized inexpensive materials, such as recycled paper, to reduce costs. These initiatives underscore the significance of teacher autonomy and innovation in maintaining 21st-century education within limited environments.

D. Teachers' Recommendations

Participants emphasized the importance of gradual and pragmatic integration when asked for suggestions. T2 said, "*Start with just one or two critical thinking questions, and then add more activities step by step.*" G4 highlighted the importance of peer collaboration, stating, "*It's good if teachers share ideas with each other, so we can learn new methods."*." T3 emphasized the importance of adaptability: "*Each class is different, so adjust the activities to what works for the students..*" Collectively, these recommendations underscore that educators prioritize gradual innovation, professional collaboration, and learner responsiveness as the most effective methods for integrating 21st-century abilities at the basic level.

3.2 Discussion

This study examined the integration of 21st-century skills, Critical Thinking, Creativity, Collaboration, Communication, and Digital Literacy by foundational-level English teachers in Indonesia within their courses. Research indicated that teachers employed straightforward yet significant tasks, including visual interpretation, text comparison, storytelling, collaborative work, and digital media utilization. Students exhibited favorable responses, demonstrating increased motivation, confidence, and engagement. However, obstacles such as time constraints, diverse competence levels, and limited access to technology influenced the degree of integration. The teachers employed adaptive strategies including the integration of textbook-based instruction with projects, task differentiation, and the utilization of economical resources.

A. Critical Thinking and Creativity

Teachers proved that even young students can participate in critical thinking when tasks are adapted to their developmental stage. Activities like text comparison, error analysis, and visual interpretation prompted learners to assess and articulate, hence expanding conclusions regarding secondary students to younger demographics. These findings support Lyons et al. (2024), who argued that systematic questioning helps integrate critical thinking across subjects. Creativity was fostered through illustrated storybooks, poster creation, and dramatic presentations, providing learners with autonomy and avenues for expression. These findings correspond with Chan and Cho (2022) assertion that creativity is fundamental to communication ability and with Munajah et al. (2022) conclusions regarding digital storytelling. This research indicates that, in contrast to tertiary-level education, creativity can be fostered through low-resource, age-appropriate activities. The results indicate that creativity and critical thinking mutually enhance one another; while students produce ideas, they concurrently evaluate and improve them.

B. Collaboration and Communication

Collaboration was common, with teachers regularly assigning roles such as leader, note-taker, or presenter to facilitate engagement. This aligns with the findings of Soomro and Arain (2023) and Mendo-Lázaro et al. (2022) that structured cooperative learning promotes accountability and enhances accomplishment. Teachers observed that collaborative activities diminished anxiety and fostered peer support, aligning with the findings of Yang (2024). This study emphasizes the emotional significance of cooperation in basic classes, where teamwork fosters both academic and social development, in contrast to much research at higher levels. Communication was highlighted via oral presentations, peer discussions, and narrative techniques. These techniques exemplify Hatmanto & Sari (2023) assertion that authentic communicative activities are fundamental to English Language Teaching and confirm the findings of Hamilton & Qi (2023) and Ambu-Saidi (2024) that presentations and conversations enhance

fluency and confidence. The innovation here is demonstrating that even young learners gain advantages from communicative tasks, especially when presented as enjoyable, low-anxiety activities. This supports Li et al. (2022) argument that fluency is more effectively cultivated through meaning-focused interaction instead of repetitive training.

C. Digital Literacy

Teachers integrated digital literacy using films, structured online inquiries, and applications like Kahoot. Despite being small relative to research conducted in more rich settings, these behaviors illustrate an intentional application of digital tools to enhance participation. YouTube videos provide authentic language, aligning with Bal et al. (2024) perspective on digital resources as exposure to real-world input. Significantly, digital usage was carefully supervised, consistent with Kilag et al. (2023) focus on critical, guided engagement rather than unregulated access. The importance of this discovery is contextual. This study demonstrates that digital literacy may be developed in modest, regulated manners, even in resource-constrained contexts, challenging the assumption of constant infrastructure used in prior studies. This highlights the necessity for teacher adaptability in addressing systemic weaknesses through innovative solutions.

D. Impact on Students

Teachers indicated that the integration of 21st-century skills improved student motivation, confidence, and engagement. Students revealed increased enthusiasm, less fear of errors, and enhanced memory for vocabulary when engaged in collaborative or creative activities. These results build upon (Daflizar & Petraki, 2022) research on inquiry-based learning and autonomy, demonstrating that affective benefits are similarly significant at foundational levels. The correlation between project-based learning and retention reinforces (Kexin & Buang, 2024) assertion that significant tasks enhance long-term learning, while the emphasis on fluency through interaction corroborates Laksmiwati et al. (2022) assertions regarding meaning-focused activities. This study's primary contribution is emphasizing that such benefits are attainable even for young learners with fundamental proficiency.

E. Challenges and Strategies

Three primary obstacles came up: constrained training time, varied competence levels, and limited access to technology. These limitations reflect the results of Bimerew (2024) on testing-focused curricula and Xu et al. (2023) concerns about excessive syllabi. Teachers integrated 4C projects with textbook-based instruction, assuring comprehensive curriculum coverage while fostering skill development. Variations in proficiency indicated differences in learners' zones of proximal development Al-Rashidi et al. (2022). Teachers implemented differentiated education, in accordance with Instructor & Ahmed (2022), by assigning responsibilities according to ability. Resource limitations in public schools have been mitigated by economical materials and innovative adaption, exemplifying teacher agency as articulated by Abdi (2025). These solutions emphasize that although institutional obstacles remain, teachers' autonomy and creativity are essential for maintaining skill integration.

F. Contributions and Implications

This study enhances ELT studies by illustrating that 21st-century abilities may be effectively included into basic classrooms, especially in environments with limited resources. This study demonstrates that younger students also gain advantages from scaffolded critical thinking, creativity, teamwork, communication, and digital literacy, whereas previous studies primarily concentrated on secondary or higher learners Fazilla et al. (2022). The findings theoretically supports Lailatul Alifah & Sukartono (2023) claim that 21st-century abilities are fundamental rather than supplementary to language education. It emphasizes the significance of teacher agency in modifying procedures to address contextual problems. The policy emphasizes the necessity for curriculum adaptability, professional advancement, and access to economical digital resources. Three implications arise. Initially, teacher training programs ought to provide teachers with methodologies for implementing the 4Cs through simple and economical means. Secondly, educational institutions have to promote collaborative engagement among teachers to stimulate innovation and the exchange of ideas. Third, policymakers have to balance testing-focused results with structures that foster 21st-century competencies at the basic level.

4. Conclusion

This study investigated the integration of 21st-century skills, Critical Thinking, Creativity, Collaboration, Communication, and Digital Literacy, by foundational-level English teachers in Indonesia into their pedagogy. Results indicate that these competencies were integrated through straightforward yet significant activities, including text comparison, storytelling, collaborative projects, and the structured application of digital tools. The findings build upon previous studies by illustrating that 21st-century abilities can be effectively developed at the foundational level, rather than simply in secondary or higher education. The integration of these abilities, in addition to language acquisition, enhanced student motivation, confidence, and engagement, emphasizing the dual function of English Language Teaching in cultivating both linguistic and life skills. Simultaneously, systemic obstacles such as restricted time, diverse skill levels, and insufficient digital resources hindered implementation. Teachers' adaptive strategies such as integrating textbook assignments with collaborative projects and utilizing inexpensive materials highlight the significance of teacher agency in maintaining creativity.

The research offers pragmatic implications for teachers training, institutional methodologies, and regulatory frameworks. Teacher training needs to prepare teachers with 21st-century skills with contextually relevant approaches, schools should promote peer collaboration, and policymakers ought to balance testing-focused curricula with competency enhancement. Future investigations utilizing larger and more diverse samples, along with longitudinal studies, are advised to enhance comprehension of sustainable approaches. This study demonstrates that enhancing basic English teaching by including 21st-century abilities is both achievable and vital for equipping learners with the skills to succeed in an increasingly complex world.

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