

## Digital Multimodal to Promote 21st-Century Learning Skills for English Young Learners: Teachers' Perspective

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### Abstract

*In today's digital age, learners must prepare to have 21st-century learning skills to face hindrances to technology's growth starting at an early age. Digital multimodality is essential for young English learners to promote 21st-century learning skills, precisely 4Cs' skills. These skills are critical thinking, communication, collaboration, and creativity. Integrating digital multimodal as a medium in learning activities engages learners' participation and helps to improve 4Cs young learners' English skills. It includes visuals, audio, and audio-visuals as instruction modalities for young learners to participate actively in English class. The primary goal of this research is to explore English teachers' perspectives regarding using varied digital tools for young learning in English classes. This research design used a mixed method in which participants were fifteen teachers who taught young English learners in Indonesian at private schools. The study's data was gathered through questionnaires and teacher interviews to explore digital multimodality used in their practices. The findings also reveal that (1) teachers employed digital multimodal and implemented visuals as dominant multimodal in their English classrooms, (2) multimodal digital increases students' involvement and learning outcomes, and (3) the implications of digital tools impact students' 4Cs' skills. The study's results suggest that the teachers utilize varied multimodal methods in English instruction to improve 4Cs' young learners. Furthermore, the implications of the results will be helpful for teachers in creating more engagement in English learning classroom activities for young learners.*

**KEYWORDS:** English young learners, digital multimodal, teachers' perspective, 21<sup>st</sup>-century learning skills, 4Cs skills

### Introduction

In today's digital age, learners must prepare to have 21st-century learning skills to face hindrances to technology's growth starting at an early age. The partnership is characterized by 21st-century skills by the 4Cs known as super skills, including creativity, communication, critical thinking, and collaboration [1]. Teachers must apply digital multimodal into the learning process to provide engaging instructional materials for young learners. It takes semiotic modes to consider the distinct capabilities of visuals, audio, and videos as instructional modalities in English classes. Delivering information in various ways and creating interactivity led students to perceive the content of knowledge [2]. Interactive instruction utilizing pedagogical methods organizes the teaching and learning processes and creates the ideal environment, including learners' engagement and awareness in language class [3]. Classroom activities should provide a suitable approach to attracting learners' participation and interest in learning. Mufida and Nabhan (2023) stated that adopting multimodal into teaching practice fosters literacy and makes it easier to memorize vocabulary [4]. An approach digital multimodal is an important way to gain various experiences and actively explore creativity, which teachers implement in the context of knowledge for young

learners.

The educational system has changed the learning tools and advances to be more exciting for teachers and students. The Partnership for 21st Century Learning (P21) for Early Childhood [5] states that children should prepare to face challenges in the future. They need to start developing the early foundational skills in thinking creatively, helping solve problems, analyzing data, and working collaboratively in the future. In preparing these skills, teachers are required to design comprehensive activities. The activities were created environments and experiences to develop 4Cs for young learners. Early experiences have a significant impact on brain and attitude development, building learners' characteristics with playful learning.

Technology provides various materials that teachers can adopt into learning activities, which are easy to access, download, and share quickly. However, teachers' main challenge was balancing technology and teaching with a combination of digital multimodality to promote students' 21st-century learning. Significant hindrances when learning English using technology, including insufficient language proficiency, difficulties with learning materials, lack of enthusiasm, and mother tongue interference, are commonly identified as obstacles to their learning progress.

Several attempts have been made to deal with barriers to learners' learning with a positive atmosphere to facilitate an optimal learning environment by fostering high expectations, promoting active learner engagement, and establishing an aesthetically appealing space that motivates learners and provides performance feedback. These elements collectively contribute to a healthy and enriching classroom environment [6]. It is crucial to employ a multimodal approach in the classroom to provide practical instruction in a foreign language. Thus, implementing the multimodal approach significantly improved the 21st-century skills and learning outcomes of learners with limited proficiency in English, as observed from the mid-term to the end of the term. This finding underscores the superiority of the multimodal teaching strategy over traditional instructional approaches [7]. Using multiple modalities, such as semiotic resources during instruction, teaching learners about the English language encourages them to discuss and respond to classroom learning material.

Additionally, Lindenberg's studies have shown that the level of participants' focus or attentiveness during interactive speech acts, such as oral presentations, can be demonstrated by employing foregrounding or backgrounding techniques [8]. For example, it emphasizes the visual mode by directing gestures toward a specific entity on a page or slide [9]. In the realm of academia, educators and instructors recognize the significance of effective pedagogy, which encompasses a thorough understanding of both the content ("what") and the manner of delivery ("how") in communication [10]. The use of varied semiotic resources together suggested and evolved with interactive discourse may be advantageous to encourage classroom engagement. Teachers and lecturers may express their knowledge in all English classrooms by employing different multimodal and interactive communication levels.

One more issue has previously been observed to gain particular attention to learners' participation in whole English classes, where the indicator of learner engagement and participation can be considered to refer to those situations of the whole class, which are key to participation and affected learning [11]. Concerning classroom learning as an interactive and collaborative method [12], two additional theoretical perspectives can be utilized to illustrate the effects of learner participation on learning. Firstly, participation can be considered a measure of learners' engagement in the classroom [13], which has been shown to impact learning outcomes. Secondly, the significance of teacher-student verbal interaction is emphasized. Nevertheless, most studies in digital multimodal instruction have only focused on learners' engagement in the classroom and little attention to English for young learners in enhancing 21st-century learning skills, including 4Cs. This paper attempts to show that digital multimodal emphasizes promoting students' 21st-century skills, 4Cs which enable them to accomplish tasks more efficiently and effectively, yielding significant learning participation and outcomes. Hence, the present paper intends to answer questions research as follows:

1. What digital multimodal aspects are the most dominant used in promoting 21<sup>st</sup>-century learning skills in the English language for young learners effectively?
2. Do digital multimodal enhance English young learners' 21<sup>st</sup>-century learning skills in classroom activities?
3. How does implementing digital multimodal impact the development of 21<sup>st</sup>-century learning skills among young learners?

By doing so, this study reveals the teaching practice utilizes a digital multimodal approach in learning teaching and materials as the most multimodal aspects of fostering the development of 21<sup>st</sup>-century learning skills for young learners in English classrooms.

## Literature

## Review

### *The 21st Century Learning Skills*

The paradigm shift from conventional learning to teaching new skills called the New Learning Paradigm, is needed by students now to be taught skills that are most in demand in the 21st century. As proposed by the Partnership for 21st Century Skills, the framework for the 21st century is characterized by 4Cs known as super skills, including creativity, communication, critical thinking, and creativity [14]. These skills are essential to developing the qualities to face rigorous challenges, a globally competitive workforce, and successful learning, teaching, and assessment. The school must align the classroom environment with the real-world environment to emphasize 21st-century skills in education and equip students to apply these skills [15].

Figure 1(a) Classroom Century	Traditional Classroom	21 <sup>st</sup> Century Classroom	Traditional vs 21 <sup>st</sup> Classroom
	Time-based	Outcome-based	
	Focus: memorization of discrete facts	"Focus: What Students Must Know, Can Do and Are Like"	
	Lessons focus on the lower level of Bloom's Taxonomy - knowledge, comprehension, and application.	Learning is designed on the upper level of Bloom's Taxonomy - synthesis, analysis, and evaluation (and include lower levels as the curriculum is designed down from the top)	
	Textbook- driven Passive Learning	Research-based Active Learning	
	Learners work in isolation - classroom within 4 walls	Learners work collaboratively with classmates and others around the world - the Global Classroom	
	Teacher-centered: The teacher is the center of attention and provider of information	Student-centered: teacher is the facilitator/ coach	

[16].

Moreover, the core skills of 21st-century skills must be possessed, including the 4Cs, to prepare them for life in society [17]. The learners should have characteristics of the 21st century because the rapid advancement of digitalization has changed how we live, interact, learn, and work. According to Lippl, C. [18], in the study of Kivunja [19], the characteristics of 4Cs in 21st-century skills are presented on the figure that learners should have in the learning process.

### The Four Cs of 21st Century Skills

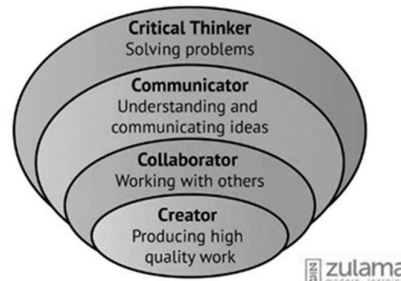


Figure 1(b) The 4Cs super skills [19].

#### *Critical Thinking*

Critical thinking is a complexity of mental processes involving diverse and multidimensional cognitive abilities. The critical thinker engages in "purposeful, self-regulated judgment that results in interpretation, analysis, evaluation, and inference, as well as an explanation of the evidentiary [20]. Developing critical thinking skills is essential for every learner. It enables individuals to become active and effective lifelong learners, attain understanding, evaluate diverse perspectives, improve problem-solving abilities, lead to empowerment, and take control of their thinking.

#### *Communication*

The skilled, communicative learner effectively expresses ideas and thoughts orally, in writing, and nonverbally in various forms and contexts [21]. Learners can listen effectively to describe meaning, knowledge, values, attitudes, and interests. Communication serves multiple purposes: informing, instructing, motivating each other, and persuading actively in the workgroup. This skill demands mastering different media and technology.

#### *Collaboration*

Collaboration is working collaboratively to pursue a common goal [22]. It is necessary because learners must work with others for the rest of their lives. Through teamwork, learners understand how to approach a problem, propose solutions, and decide on the best action. It is also helpful for them to learn that other people sometimes have

different ideas than they do. Moreover, collaboration skills improve efficiency for teaching and learning and all aspects of life after school.

#### *Creativity*

Based on the National Advisory Committee on Creative and Culture Education (NACCCE), creativity is an imaginative and innovative activity that produces new and valuable work [23][24][25]. Creative competence involves learners being able to develop innovative ideas while learning. Additionally, creativity skills encourage adaptation to various life situations by generating innovative ideas or solutions, strategies, and procedures to overcome difficulties and new challenges [26].

#### ***Digital Multimodal for English Teaching and Learning***

Digital tools are becoming a significant means of knowledge transfer in the education system, moving from content-based to competency-based curricula and from teacher-centered to student-centered teaching and learning environments [27]. Teachers must create an exciting atmosphere in English teaching and learning to gain learners' attention. Moreover, the learners are beginner-level learners who need guidance and appropriate lesson materials. The concept of digital multimodal offers multiple ways to learn English context.

Multimodality involves the combination of different modes of representation, e.g., between the image and the written or spoken word. The application of any medium that contains text, sound, and visuals is called multimodal composition [28]. Learners could access learning resources outside the national curriculum through digital multimodal composing. Digital multimodal composing enables teachers and learners to effectively communicate materials by integrating text, pictures, visuals, and other forms of digital media.

By utilizing various elements, a more comprehensive and engaging learning experience can be facilitated. It assists teachers in finding all the media they need to teach English materials. Additionally, digital multimodal composition enables learners to understand the material. To illustrate, teachers modify the content from a textbook into different media formats, such as posters or infographics, to increase learners' understanding of the material and to capture their attention. Since children have different learning styles, creating a curriculum or plan that works for an entire school can be challenging. Multimodal learning provides a potential solution to this problem.

#### ***Integrating 4Cs in English Teaching Using Digital Multimodal***

Multimodality has always been a method to convey meaning and represent ideas through various modes of communication, including verbal, visual, gestural, aural, and spatial [29]. The newness of multimodality lies in how teachers distribute information through different mediums. Engaging learners in designing multimodal artifacts gives them greater flexibility and creativity in their content-specific learning. According to Battle for Kids [30], play-based and child-centered teaching helps teachers know how children learn to support their early experiences learning in the 21st century at school and beyond. When engaged in play, young learners express what they are learning, what they are interested in, and what they are concerned about. They also try out and repeat actions they have been exposed to. By observing children at play, we gain insight into their understanding and can identify areas in which they need to improve their skills. Utilizing these opportunities assists children in establishing connections to the broader world.

In the field of English, for young learners to acquire the necessary skills in the 21st century, they must find a learning environment that aligns with the demands of this era [31]. Technological knowledge must be imparted to integrate the 4Cs, which are critical for the young generation. Teachers and school management must prioritize implementing these aspects to ensure an effective learning process. Furthermore, teachers can build diverse activities through technology tools such as PowerPoint presentations, digital media, games using applications such as Kahoot, online puzzles, interactive discussion using videos, group pairs work by playing digital flashcards, and digital storytelling with music. In learners' activities, they take actions to rearrange elements into new meanings: for example, rearranging position and size, coloring a picture, etc. The learners reshape tools or semiotic resources to other styles to perform the intended meanings. Those activities increase learner enthusiasm, decrease anxiety, and encourage language learning [32].

#### ***Methodology***

##### ***Research Design***

Mixed-method research was employed in this study. It is utilized and customized to achieve the study's objectives, involving participants in data collection to establish rapport and credibility with the individuals involved [33]. Quantitative research was employed to answer the first research question, aiming to identify the most effective digital multimodal aspects in enhancing 21st-century learning skills in English language classes for young learners. Meanwhile, qualitative research answered the second and third research questions about the impact of

implementing digital multimodality on developing 4Cs among young learners in English language learning.

### Research Participants

The participants of this study were fifteen English language teachers at private schools in Indonesia. It took purposeful random sampling from a small number of participants. They taught English subjects to young learners at schools for about three years. They were selected because of the technology integrated into their teaching activities. The teachers implemented digital tools to support learners' learning. It was a focus research study to describe the most effective digital multimodal aspects and the implications of fostering learners' 4Cs.

### Data Collection and Instruments

The data collection of the study was conducted from two sources. The writer completed the survey and in-depth interviews with teachers. The writer surveyed with questionnaires to explore the dominant digital tools English teachers use for classroom activity with young learners. The statements utilized the Likert scale [34] and adapted from the aspects of 21st-century learning skills from Partnership for 21st Century Skills (P21 Framework) by focusing on the 4Cs: creativity, critical thinking, communication, and collaboration. The questionnaire was Google Forms and given to the teachers through WhatsApp. Furthermore, to discover the implications of digital multimodality, the writer gathered in-depth interviews with three teachers who taught young English learners. The interview questions with English teachers were the following domain in the 4Cs elements related to (a) the reason why used the digital language, (b) the way it is used in classroom activity, (c) the specific content knowledge with 4Cs elements, (d) the impact of digital multimodal.

### Data Analysis

In the process of analyzing data, the writer employed descriptive statistics to explain the mode. Using statistical quantitative results, it explored finding the most dominant digital multimodal (visual, audio, or audio-visual). The survey results were identified in quantitative to see the most frequent answers using SPSS version 25th. The data results were interpreted based on the criteria presented in the Likert-type scale 1 to 5, namely, 1 indicates never, 2 indicates almost never, 3 indicates sometimes, 4 indicates often, and 5 indicates very often.

Moreover, the writer gathered in-depth interviews with teachers to describe the implications and impacts of digital multimodal instructional practices in English classrooms. It utilized thematic analysis to analyze the transcript of the interview.

## Result

### Quantitative Results

In this section, the writer identified teachers' experience teaching using digital multimodal to promote 21st-century learning skills for young English learners. Four skills are investigated in this study: critical thinking, communication, collaboration, and creativity skills (4Cs). The data was collected from fifteen English teachers. The results of quantitative questionnaires are presented in this section. The descriptive statistics will be shown in tables from the questions survey results to see the dominant techniques (visual, audio, audio-visual, or multimodal) utilized in English classroom activities. The results of the 4Cs' survey are described in the following figure below:

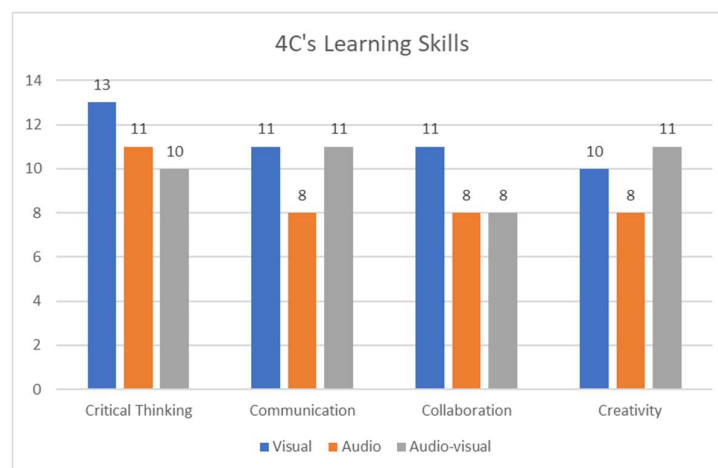


Figure 1(c) 4Cs

Learners Teachers

Survey of Young

As illustrated in Figure 1 (c) revealed in the mode row the surveys of digital multimodal through four items for

critical thinking skills. The range of 5-point Likert-scale items from never (1) to very often (5). The frequency of teachers' responses was the most common according to the questionnaire scale. It shows the mode of visual techniques is 4 (often) frequencies and it can be said that pictures develop learners' critical thinking, think creatively, and create new ideas in English learning. The audio mode is 5 (very often) frequencies, which is the audio technique to support the learning activities in building my learners' deep thinking. Moreover, the audio-visual mode has 4 (often) frequencies. It means that video develops rational judgments to solve unfamiliar problems. From the data, the researcher concluded that teachers used more audio techniques as a high mode in the critical thinking skills aspect as the dominant multimodal.

The second aspect is communication skills, described in the Figure above, which summarizes the results of digital multimodal. The frequency of visual mode is 4 (often) frequencies, which pictures make learning accessible to understand and can formulate comprehensive ideas. The next mode is audio, which shows 3 (sometimes) frequencies at which learners can receive messages and improve their speaking skills. Moreover, the audio-visual mode is 4 (often) frequencies. It means the learners can express ideas and receive news in English through video. The highest frequency in the results is visual and audio-visual. Meanwhile, the low frequency is audio. Thus, teachers integrated pictures and videos to promote 21st-century learning, precisely communication skills.

Furthermore, collaboration skills result from the surveys of digital multimodal represent the visual mode shows 4 (often) frequencies that each learner can share ideas with peers in a group about experiences, favorite things, etc. then, the audio mode is 3 (sometimes) frequencies, which share ideas and experiences by using it. The last mode is audio-visual, which shows 3 (sometimes) frequencies that learners discuss and set up the plan's creation through videos. The result indicates that using visuals or pictures as a digital multimodal to enhance collaboration skills is the highest.

The last aspect revealed the use of digital multimodal in improving creativity skills in classroom activities. The majority of teachers use visuals to enhance learners' creation and uncommon ideas in English learning which is 4 (often) frequencies appear in the mode. Additionally, the mode of audio shows 3 (sometimes) frequencies that improve learners' imagination through voice. Besides, the frequency of audio-visual is 4 (often) frequencies. It means that the learners can explain what objects are in a video and improve self-confidence. From the results, it concluded that pictures and videos are the highest modes that are approved in promoting learners' creativity.

Based on the quantitative findings, teachers often use digital multimodal in their English teaching. It is approved by the data that teachers apply multimodal tools for promoting the 4Cs (critical thinking, communication, collaboration, and creativity). In summary, the dominant aspects of digital multimodal used to present the 4Cs are visuals (pictures).

### ***Qualitative Results***

The qualitative findings to respond to the second and third research questions related to the improvements in learners' learning with digital multimodal learning and how the teachers implement multimodal in their language teaching and learning. From the interviews, the researcher explored teachers' experiences implementing multimodal in their classes. There are several reasons why digital multimodal is essential to integrate and improve learners' 21st-century skills in language classrooms. Moreover, teachers drew the process of using multimodal which attracts students' interest to participate actively through depth interviews. It was conducted by phone and online meetings with three English teachers for young learners. The structure of the interview is a semi-structured interview.

The interview findings support the data of the questionnaire, highlighting the advantages of integrating multimodality in teaching English using pictures, audio, and video media to hone the 4Cs skills of young learners. As stated by the first respondent, the following:

*I can hone learners' 4Cs skills through fun learning and using digital media with existing material. (second teacher's transcription).*

Another teacher also stated she often showed their students pictures because they were interested in what they looked at.

*My students were more active when I showed photographs to them. They will be happy and ask more questions about the object there. (first teacher's transcription).*

The interviewees emphasized the benefits of 21st-century skills needing to be applied early so that learners are updated in recognizing and operating technology.

*In the world of education, the role of ICT is very important to increase the effectiveness of the teaching and learning process. Technology can be used to facilitate the learning process. I actually used videos on YouTube and showed pictures from the Internet or Google in my English class to attract my students' concentration. (first teacher's transcription).*

Students can confidently and effectively express ideas through multiple forms of media. The significance of collaboration skills in enhancing task efficiency and incorporating alternative perspectives was also emphasized.

*I always used digital pictures for my students because young learners can see directly. For example, we learn about signs like telling prohibition and obligation. So, they can know the signs. (first teacher's transcription).*

Furthermore, teachers realized the value of critical thinking skills in making rational decisions and obtaining relevant information. Based on the interview responses, teachers stated the following:

*I think the 4Cs are a foundation of modern skills that are important to succeed in the challenges. These skills are 4.0 which helps learners to be creative and critical thinkers, work together, and share ideas. (second teacher's transcription).*

However, teachers also encountered challenges when implementing multimodal digital in the classroom. They said that technical issues, such as internet connection, setting up projectors and tools, and students' uncontrolled curiosity level or very high student activeness, are some of the challenges to using digital tools in language classes.

*Teaching 4 skills to young learners at the same time quieter complicated. Therefore, a teacher should be creative in handling the class. So, the class is interested in learning. (second teacher's transcription).*

*But the young learners were very curious about what I showed for them. It made it difficult to control my language class. (first teacher's transcription).*

### Conclusion

In today's era of rapid globalization, 21st-century skills are needed because they are the skills that today's learners will need to succeed in future careers [35]. The 21st Century Skills framework highlights the 4Cs – Communication, Collaboration, Creativity, and Critical Thinking – as the key learning and innovation skills for the 21st century. Teachers should be aware of the need to educate young learners with 21st-century skills that will enable them to keep up with the ever-evolving technologies of the global workforce.

Thus, integrating digital multimodal with the 4Cs Skills into the learning process can help build a generation that can meet the challenges of the 21st century. As a result of this study, the teacher used multiple digital tools for children to motivate them to learn English. By implementing real-time experiences, young learners participate actively and boost 4C skills in an enjoyable environment. Moreover, the majority of teachers used visual modes in English teaching which have positive effects, promote learners' achievement, and improve performance.

The study suggests that young learners employ multimodality media for 21st-century learning in their English language instruction, although there is room for improvement in certain areas. Incorporating the 4Cs framework confers multiple advantages in teaching English skills, including facilitating effective communication, collaboration, critical thinking, and creativity. Through enhanced skills development, learners can improve their communication capacity, resolve issues, and express ideas in English. By implementing new teaching approaches in various ways with digital tools, learners can have more opportunities to interact with their peers, friends, and more advanced students. These activities can enhance mutual understanding, and improve learning outcomes, and learners' 4C skills, even though many teachers' efforts to create and adopt these approaches. It is essential to recognize the limitations of this study. This research was collected with a small sample size of 15 teachers, which may limit the generalizability of the findings. It is recommended that further research be conducted with a larger sample of similar bilingual contexts to develop a broader understanding of this issue.

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