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Enhancing 21st Century Skills through Digital Storytelling: A Study of Collaboration, Critical Thinking, Creativity, and Technological Literacy in History Education

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Abstrak

Perkembangan era digital menuntut adanya transformasi dalam metode pembelajaran sejarah yang masih didominasi pendekatan konvensional. Kesenjangan antara tuntutan keterampilan abad ke-21 dan praktik pembelajaran di madrasah menjadi dasar dilakukannya penelitian ini, yang bertujuan untuk mengeksplorasi implementasi *digital storytelling* sebagai strategi inovatif dalam mengembangkan keterampilan kolaborasi, berpikir kritis, kreativitas, dan literasi teknologi siswa. Penelitian ini menggunakan pendekatan kualitatif dengan desain studi kasus yang dilaksanakan di Madrasah Aliyah ATQIA Bondowoso, melibatkan 24 siswa kelas XI. Data dikumpulkan melalui observasi partisipatif, wawancara mendalam, dan analisis dokumen, serta dianalisis secara tematik dengan triangulasi sumber untuk menjamin validitas. Hasil penelitian menunjukkan bahwa *digital storytelling* secara efektif mengembangkan empat keterampilan utama abad ke-21 melalui pembagian peran dalam kerja kelompok, seleksi dan analisis sumber sejarah, kebebasan dalam berekspresi melalui multimedia, serta penggunaan berbagai alat digital yang relevan. Temuan ini memberikan bukti empiris mengenai potensi *digital storytelling* sebagai strategi pembelajaran holistik yang dapat diadaptasi untuk konteks pendidikan madrasah dan lembaga sejenis.

Keywords: *Digital Storytelling*, Pembelajaran Sejarah, Keterampilan Abad 21, Madrasah

Abstract

The development of the digital era demands a transformation in history teaching methods, which are still dominated by conventional approaches. The gap between the demands of 21st-century skills and learning practices in Islamic schools (madrasahs) is the basis for this research, which aims to explore the implementation of digital storytelling as an innovative strategy for developing students' collaboration, critical thinking, creativity, and technological literacy skills. This research used a qualitative approach with a case study design conducted at Madrasah Aliyah ATQIA Bondowoso, involving 24 11th-grade students. Data were collected through participant observation, in-depth interviews, and document analysis, and analyzed thematically with source triangulation to ensure validity. The results indicate that digital storytelling effectively develops four key 21st-century skills through role allocation in group work, selection and analysis of historical sources, freedom of expression through multimedia, and the use of various relevant digital tools. These findings provide empirical evidence of the potential of digital storytelling as a holistic learning strategy that can be adapted to the educational context of Islamic schools and similar institutions.

Keywords: Digital Storytelling, History Learning, 21st-Century Skills, Madrasah

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INTRODUCTION

The integration of 21st-century competencies into educational practice has become a global imperative in response to the increasing complexity and digitalization of the modern world. These

competencies—critical thinking, creativity, collaboration, communication, problem-solving, and digital literacy—are widely regarded as essential for preparing students for future academic and professional challenges (Ata & Alpaslan, 2024; Hu, 2023; Zainil et al., 2022). Within this framework, digital technology serves not merely as a supportive tool but as a transformative agent in reshaping teaching and learning processes across educational systems (Orero-Blat et al., 2022). The pedagogical shift toward technology-enhanced learning environments has led to the increasing adoption of interactive platforms and digital learning media. These innovations have demonstrated their capacity to foster student engagement and deepen conceptual understanding, particularly when aligned with project-based learning strategies that emphasize real-world relevance. Simultaneously, digital literacy has emerged as a foundational competency, ensuring that students are not only consumers of information but also capable of producing and evaluating digital content (monaem, 2020).

However, the successful implementation of 21st-century learning paradigms largely depends on the teacher's capacity to integrate pedagogical innovation with technological fluency. Recent studies underscore the importance of sustained professional development programs aimed at equipping educators with the skills required to navigate digital tools and design meaningful learning experiences (Al-Hothali, 2021; Annan-Brew et al., 2024). Furthermore, cultivating a collaborative educational culture among teachers, students, and stakeholders has been shown to reinforce the acquisition of these competencies (Yoo, 2022).

In the context of history education, traditional instructional approaches—dominated by textbook reliance and lecture-based delivery—have proven insufficient in fostering students' active engagement or in cultivating 21st-century skills. This pedagogical stagnation necessitates the adoption of innovative learning strategies that are interactive, learner-centred, and culturally relevant. Among these, Digital Storytelling (DST) has gained attention as a pedagogical model that synthesizes narrative structure with multimedia elements, thereby enhancing both cognitive and affective learning dimensions.

This study addresses the limited effectiveness of conventional history teaching methods in Madrasah Aliyah settings in Indonesia, particularly in cultivating digital competencies, collaboration, critical thinking, and creativity. While numerous international studies affirm the educational value of DST, research on its implementation in Islamic secondary schools in Southeast Asia remains sparse. Most existing literature focuses on general ICT integration or Western educational settings, with little emphasis on culturally contextualized, project-based learning in history education. To bridge this research gap, this study proposes Digital Storytelling as an integrated instructional strategy aimed at enhancing historical understanding while simultaneously promoting 21st-century skills. Conducted at Madrasah Aliyah ATQIA Bondowoso, the study explores four specific objectives: (1) to analyze the development of student collaboration through group-based DST projects, (2) to examine critical thinking enhancement via historical source evaluation and narrative construction, (3) to explore creativity in the multimodal representation of historical events, and (4) to assess improvements in digital literacy through hands-on use of digital tools.

MATERIALS AND METHODS

This study employed a qualitative approach with a case study design to explore the implementation of digital storytelling in history education, specifically within the context of eleventh-grade students at Madrasah Aliyah ATQIA Bondowoso. The primary objective was to gain a deep understanding of the learning processes and the meaning constructed by participants through their engagement with digital storytelling activities.

The research was conducted in a natural classroom setting, involving 24 students who actively participated in the digital storytelling project and two history teachers who served as supporting informants. Participants were selected through purposive sampling based on their direct and meaningful involvement in the learning process. Data collection techniques included participant observation during the learning sessions, in-depth interviews with six selected students and two teachers, and document analysis involving students' final video products, reflective notes, and lesson plans (RPP).

The researcher acted as the main instrument in this qualitative inquiry, supported by structured observation guidelines, semi-structured interview protocols, and document analysis rubrics. The data were analyzed using the Miles and Huberman interactive model, which comprises data reduction through

thematic coding, data display using analytical matrices, and conclusion drawing supported by constant comparison and verification.

To enhance the credibility and trustworthiness of the findings, multiple strategies were employed. These included prolonged engagement in the field, triangulation of methods and data sources, and member checking, whereby selected participants reviewed and validated the researcher's interpretations. Through this systematic process, the study aimed to ensure the validity and rigour of its qualitative insights.

RESULTS

The findings of this study indicate that digital storytelling, as implemented in the Indonesian History class at Madrasah Aliyah ATQIA Bondowoso, effectively promotes four key 21st-century skills: collaboration, critical thinking, creativity, and technological literacy. Far beyond its function as a narrative tool, digital storytelling serves as an integrated learning strategy that engages students cognitively, socially, and technically. The following sections elaborate on how each of these competencies emerged through the learning process.

1. Collaborative Learning through Digital Storytelling: Fostering 21st-Century Skills in History Education

This study reveals that the implementation of digital storytelling in the Indonesian History subject for Grade XI students at Madrasah Aliyah ATQIA Bondowoso significantly contributes to the development of students' collaborative competencies—one of the core components of 21st-century skills. Within the learning design, students were organized into small groups of three to four members and assigned to collaboratively produce a digital story featuring a national hero, such as Soekarno, Cut Nyak Dhien, Pattimura, or Sultan Hasanuddin.

Each student in the group assumed a specific role that complemented the others. Roles included scriptwriters responsible for developing narrative content based on reliable historical sources; visual designers tasked with sourcing or creating illustrations, maps, or images to support the storyline; audio editors who curated background music and voiceovers to enhance emotional resonance; and technical editors who operated digital platforms such as *iMovie* or *Canva* to integrate the multimodal components into a cohesive video.

This structured task division required students to engage in authentic collaboration beyond mere task allocation. It necessitated sustained interaction, idea exchange, consensus building, conflict resolution, and mutual feedback—all of which nurtured effective communication, active listening, and openness to critique. The collaborative process fostered a social learning environment wherein students assumed collective responsibility for the project outcomes.

Findings indicate that students involved in digital storytelling projects demonstrated increased motivation and enthusiasm, attributing a greater sense of ownership over their work. Notably, collaborative groups produced outputs of higher quality—both in content accuracy and multimedia presentation—compared to individual assignments. The process also contributed to the enhancement of other complementary skills such as critical thinking, creativity, and historical interpretation.

Overall, the integration of digital storytelling within a collaborative learning framework proves to be an effective pedagogical strategy not only for enriching history education but also for advancing core 21st-century competencies. By engaging in structured teamwork and shared objectives, students learned to build constructive social relationships, manage collective responsibility, and approach content creation through interdisciplinary thinking. These findings reinforce the pedagogical value of embedding collaborative digital practices into classroom settings as a means to cultivate transferable skills essential for the digital era.

2. Cultivating Critical Thinking through Digital Storytelling in History Education

The integration of digital storytelling into the Indonesian History curriculum at Madrasah Aliyah ATQIA Bondowoso has demonstrated a substantial impact on the development of students' critical thinking skills. Within the framework of this instructional approach, students are required not only to construct narratives centred on historical figures but also to engage in thoughtful decision-making

concerning message content, narrative structure, and the selection of appropriate digital media.

Prior to developing their digital stories, students were encouraged to explore essential analytical questions such as: "What is the central role of this historical figure in the independence movement?", "How can this story be presented in a way that is accessible and meaningful to their peers?", and "Which media format—archival photographs, voice recordings, or animated illustrations—best conveys the intended message?" These questions served as cognitive scaffolds that required students to critically evaluate the relevance, credibility, and communicative effectiveness of historical content.

Throughout the production process, students engaged in rigorous evaluation of digital and historical sources. They were tasked with identifying reliable references, selecting visual or audio materials with precision, and ensuring compliance with copyright and academic integrity standards. The narrative development phase also prompted logical reasoning and structural decision-making. For instance, students debated whether to open their story with the protagonist's childhood in order to build emotional depth, or to focus immediately on pivotal historical events to drive narrative urgency.

Such activities inherently stimulated higher-order thinking skills, including analysis, synthesis, and evaluative judgment. Students demonstrated increased sensitivity in distinguishing between factual historical evidence and subjective interpretation, and they exhibited the ability to construct arguments grounded in historical data. The final digital products not only showcased creativity and historical insight but also reflected a process of deliberate reasoning and reflection on how historical narratives should be framed and delivered.

Therefore, digital storytelling proved to be an effective pedagogical tool in fostering students' critical thinking capabilities. By navigating the complexities of historical interpretation, media selection, and audience engagement, students transitioned from passive recipients of historical knowledge to active meaning-makers who bear responsibility for the integrity and impact of the stories they tell. This transformation underlines the broader educational potential of digital storytelling in cultivating reflective, analytical, and intellectually responsible learners in the 21st century.

3. Fostering Creativity through Multimedia Expression in Digital Storytelling

In addition to promoting collaboration and critical thinking, the implementation of digital storytelling in the Indonesian History classroom at Madrasah Aliyah ATQIA Bondowoso has provided an expansive space for the development of student creativity. Within the scope of this project, students were granted the autonomy to articulate their historical understanding through diverse multimedia formats—visual, audio, and digital effects—thus transforming their role from mere conveyors of historical facts into creators and interpreters of meaningful historical experiences.

The creative process enabled students to explore a wide range of visual strategies, including drawing character representations of national heroes, staging and photographing reenacted scenes, and producing simple animations to enhance the clarity and emotional tone of the narrative. Some groups integrated interactive visual elements, such as animated maps of battle locations or dynamically presented iconic quotes. One notable example includes the dramatic rendering of Soekarno's renowned quote, "Give me ten youths, and I will shake the world," accompanied by a slow-revealing text effect layered over historical imagery.

The auditory dimension also played a pivotal role in the students' creative engagement. Students recorded their voiceovers, adapting intonation and emotional expression to align with the storyline. Background music selections were carefully curated to evoke specific moods and themes: patriotic compositions such as "Bagimu Negeri" underscored heroic scenes. In contrast, soft piano music was used to intensify the emotional gravity of moments depicting struggle or loss.

To further enrich the narrative experience, students applied various digital enhancements—scene transitions, animated text, and colour filters—to match the visual tone of the content. In some instances, students conveyed complex emotional meaning through purely visual and auditory cues, without relying on spoken or written explanations. For example, one group presented a mourning sequence entirely in grayscale with melancholic background music, eliciting emotional resonance more effectively than textual description alone.

This process demonstrated students' ability to think divergently and "outside the box" in order to render historical material more engaging and immersive. Their imaginations were actively

stimulated as they reinterpreted historical events into compelling multimodal narratives. Moreover, when granted the freedom to experiment with multimedia tools, students exhibited significantly higher levels of motivation and engagement compared to conventional writing tasks. They embraced the creative latitude as an opportunity not only for self-expression but also for deepening historical understanding.

Thus, digital storytelling served as a powerful medium for nurturing creativity in history education. By bridging the domains of academia and the arts, this approach enabled students to learn history not merely through memorization, but through creation, reviving historical values and narratives in contemporary, student-centred formats. This pedagogical innovation highlights the transformative potential of integrating creative multimedia expression into curriculum design to support the holistic development of 21st-century learners.

4. Developing Technological Proficiency through Digital Storytelling

An essential dimension emerging from the implementation of digital storytelling at Madrasah Aliyah ATQIA Bondowoso is the notable enhancement of students' technological literacy. The pedagogical model adopted in this project provided students with the autonomy to select digital platforms and tools that aligned with their existing technological skills and personal learning preferences. This flexible approach catalysed building student confidence in utilising digital technologies while fostering a more functional and empowered relationship with digital media. Students were introduced to a range of software options to support their story production processes. Beginners were encouraged to work with accessible platforms such as PowerPoint, Canva, or Adobe Spark, which facilitated the creation of basic visual narratives. Intermediate-level students engaged with more complex video-editing tools like iMovie and Windows Movie Maker to develop multimedia content with synchronized transitions, audio tracks, and animated sequences. For advanced learners, the project offered opportunities to explore dynamic platforms such as Scratch, enabling coding-based storytelling, and Flipgrid, which supported the creation of interactive video
presentations.

Allowing students to select their tools promoted exploratory learning and autonomy, transforming them from passive digital consumers into active digital content producers. They assumed control over various stages of media production—including storyboarding, editing, sound integration, and publication—thus acquiring transferable skills essential for modern communication and knowledge dissemination. The project also presented students with practical technical challenges that necessitated problem-solving strategies, such as video file compression, resolution optimization, and time-length adjustments. For instance, when confronted with file size limitations, students explored compression methods that preserved both visual clarity and audio integrity.

Beyond the immediate context of the classroom, the technical competencies gained through this project bear long-term relevance in preparing students for digital citizenship and professional environments. The learning process demystified technology for many students, enabling them to overcome apprehension and approach digital tools as accessible instruments for creativity and learning. They began to perceive technology not as a barrier, but as a partner in the learning process—adaptable to their needs and responsive to their creativity.

Overall, the digital storytelling project significantly contributed to the cultivation of a productive digital mindset among students. Rather than merely emphasizing the creation of multimedia products, the initiative promoted critical engagement with technology as an enabler of Expression, learning, and innovation. In this way, students not only deepened their historical understanding but also developed essential 21st-century digital competencies, positioning them as empowered learners in an increasingly mediated world.

DISCUSSION

The results of this study support previous findings showing that digital storytelling (DST) is an innovative pedagogical approach capable of integrating technology and narrative elements to develop 21st-century skills, particularly critical thinking, creativity, communication, and collaboration (Castillo-Cuesta et al., 2021; Ya-li & Suki, 2023). Student engagement in DST has been shown to increase active participation, deepen conceptual understanding, and strengthen digital literacy through the use of various

multimedia platforms.

One significant contribution of DST is in strengthening literacy skills, particularly writing. Through the construction of digital narratives, students not only express their experiential and knowledge-based understanding but also demonstrate increased motivation to write creatively and reflectively (Borong & Yamson, 2023; Jwair, 2023). These findings confirm the effectiveness of DST as a multimodal text production-based learning strategy in enhancing students' linguistic competence. Furthermore, DST also plays a crucial role in developing collaborative skills. Group-based DST projects require coordination, negotiation of meaning, and sharing of responsibilities, fostering constructive social interactions among students (Chujitarom, 2020; Khamcharoen et al., 2022). A unique finding in this study is the strengthening of the collaborative dimension through structured functional role allocation—such as scriptwriter, visual designer, and editor—which has been shown to enhance individual engagement significantly. This pattern, while effective, remains rarely explored in DST literature in the Indonesian context.

Theoretically, these results reinforce the relevance of DST in developing critical thinking skills, which are at the heart of historical thinking: the ability to evaluate sources, construct evidence-based narratives, and avoid rote-based learning approaches. As explained by Bakri et al. (2024) and Mutohhari et al. (2021), critical thinking is a high-level cognitive skill that requires synthesizing information, assessing the credibility of sources, and making decisions in ambiguous contexts (Bakri et al., 2024; Mutohhari et al., 2021). However, various studies show that an education system still oriented toward memorisation and standardised testing often acts as a major obstacle to the development of these skills, as exemplified by the implementation of the curriculum in Kenya (Ongesa, 2020). Furthermore, the use of DST aligns with multimodal learning Theory, which states that the combination of various modes of representation, such as text, images, and audio, can deepen information processing (Hu, 2023). Therefore, the integration of DST encourages educators to adopt a more adaptive and contextual approach to respond to the diverse needs of students and enhance their capacity for critical thinking, communication, and collaboration across backgrounds.

This research makes three significant key contributions to the development of technology-based learning in madrasahs. Empirically, this study demonstrates the effectiveness of using Digital Storytelling (DST) in the context of history learning in Indonesian madrasas, a field that has received little attention in scientific studies. Theoretically, this study also expands the scope of the Technological Pedagogical Content Knowledge (TPACK) model by demonstrating how the integration of technology, pedagogy, and historical content can be concretely realized in learning practices. Meanwhile, a practical contribution is demonstrated through the presentation of real-life examples of role allocation in group-based DST projects, which can be used as a reference by teachers in designing similar collaborative learning activities. Thus, this study not only enriches the academic literature but also has direct implications for improving the quality of teaching practices in madrasas. While this study makes an important contribution to understanding the use of Digital Storytelling (DST) in history teaching in madrasas, several limitations should be acknowledged. One major limitation lies in the limited sample size, as the study was conducted in only one madrasah. This means the findings cannot be generalized to other madrasah contexts, particularly those with different
geographic characteristics, infrastructure, or learning cultures.

As a follow-up, it is recommended that future research be conducted more broadly and with in-depth designs. First, longitudinal studies are needed to measure the impact of DST on long-term learning outcomes, including its influence on knowledge retention, 21st-century skills, and student motivation. Second, experiments with control groups are highly recommended to quantitatively compare the effectiveness of DST with conventional learning methods, thus obtaining more objective data regarding the method's advantages. Third, similar research in areas with limited infrastructure needs to be explored to assess the potential for adapting low-tech DST, so that this approach remains inclusive and widely applicable across various educational contexts, particularly in areas with limited access to technology.

CONCLUSIONS

This research demonstrates that the application of digital storytelling in Indonesian history learning at Madrasah Aliyah ATQIA Bondowoso effectively develops four 21st-century skills:

collaboration, critical thinking, creativity, and technological literacy. Findings indicate that this approach not only enhances students' understanding of historical material but also fosters social, analytical, and technical skills through the process of creating multimedia narratives. Collaboration in small groups with specific role assignments fosters collective responsibility, while source selection and story development stimulate critical thinking. Freedom of expression through visual and audio elements fosters creativity, while the use of digital platforms strengthens students' technological competencies.

The impact of this research on scholarship lies in strengthening empirical evidence that digital storytelling can be adapted to the context of madrasah education in Indonesia, while also enriching the TPACK (Technological Pedagogical Content Knowledge)-based learning model. Practically, these findings guide teachers in designing collaborative projects that integrate academic content with 21st-century skills. For broader implementation, teacher training in designing holistic assessment rubrics and providing supporting infrastructure is recommended. Further research could test the effectiveness of this method in other subjects or use an experimental design involving a control group to measure the long-term impact on motivation and knowledge retention. Thus, digital storytelling has the potential to be an innovative learning strategy that bridges the gap between conventional education and the demands of the digital age.

REFERENCES

Al-Hothali, H. M. (2021). Inclusion of 21st Century Skills in Teacher Preparation Programs in the Light of Global Expertise. *International Journal of Education and Practice*, *9*(1), 105–127. https://doi.org/10.18488/journal.61.2021.91.105.127

Annan-Brew, R. K., Ezugwu, I. J., Surman, S. H., & Dadzie, J. (2024). Enhancing Pre-service Teacher Effectiveness: Integration of 21st-century Skills During Off-campus Teaching Experiences. *European Journal of Education*, *59*(4). https://doi.org/10.1111/ejed.12737

Ata, R., & Alpaslan, M. M. (2024). The Role of Digital Literacy, Epistemological Belief and Reading Motivation and Engagement in Teaching 21st Century Skills. *International Journal of Information and Learning Technology*, *41*(3), 304–317. https://doi.org/10.1108/ijilt-08-2023-0142

Bakri, F., Permana, H., & Ardiati, R. P. (2024). The TPACK Physics Learning Video: Forming 21st Century Skills in Physics Learning. *Journal of Physics Conference Series*, *2866*(1), 012119. https://doi.org/10.1088/1742-6596/2866/1/012119

Borong, N. L., & Yamson, S. M. (2023). Digital Storytelling as a Method for Teaching Writing Skills. *Multidisciplinary Science Journal*, *5*, 2023063. https://doi.org/10.31893/multiscience.2023063

Castillo-Cuesta, L., Quinonez-Beltran, A., Cabrera-Solano, P., Ochoa-Cueva, C., & Gonzalez-Torres, P. (2021). Using Digital Storytelling as a Strategy for Enhancing EFL Writing Skills. *International Journal of Emerging Technologies in Learning (Ijet)*, *16*(13), 142. https://doi.org/10.3991/ijet.v16i13.22187

Chujitarom, W. (2020). Digital Storytelling Through Teamwork Gamification Model to Encourage Innovative Computer Art. *Tem Journal*. https://doi.org/10.18421/tem92-18

Hu, L. (2023). Programming and 21st Century Skill Development in <scp>K</Scp>-12 Schools: A Multidimensional Meta-analysis. *Journal of Computer Assisted Learning*, *40*(2), 610–636. https://doi.org/10.1111/jcal.12904

Jwair, A. A. B. (2023). Improving Middle-School Students' English Vocabulary via Digital Storytelling. *Journal of Educational and Social Research*, *13*(6), 195. https://doi.org/10.36941/jesr-2023-0158

Khamcharoen, N., Kantathanawat, T., & Sukkamart, A. (2022). Developing Student Creative Problem-Solving Skills (CPSS) Using Online Digital Storytelling. *International Journal of Emerging Technologies in Learning (Ijet)*, *17*(11), 17–34. https://doi.org/10.3991/ijet.v17i11.29931

monaem, R. A. A. El. (2020). Towards a Smart University in the Light of 21st Century Skills. *An-Najah University Journal for Research - B (Humanities)*, *34*(6), 1109–1132. https://doi.org/10.35552/0247-034-006-007

Mutohhari, F., Sutiman, S., Nurtanto, M., Kholifah, N., & Samsudin, A. (2021). Difficulties in Implementing 21st Century Skills Competence in Vocational Education Learning. *International Journal of Evaluation and Research in Education (Ijere)*, *10*(4), 1229. https://doi.org/10.11591/ijere.v10i4.22028

Ongesa, C. M. (2020). Critical Thinking Skill Gap in the Kenyan Education Curriculum. *Journal of Interdisciplinary Studies in Education*, *9*(SI), 178–191. https://doi.org/10.32674/jise.v9isi.1860

Orero-Blat, M., Jordán, H. D. J., & Marqués, D. P. (2022). A Literature Review of Causal Relationships in 21st Century Skills and Digital Leadership. *International Journal of Services Operations and Informatics*, *12*(1), 1. https://doi.org/10.1504/ijsoi.2022.123567

Ya-li, T., & Suki, N. M. (2023). Evaluating Future Trends of Digital Storytelling in Higher Education: A Bibliometric Analysis. *International Journal of Interactive Mobile Technologies (Ijim)*, *17*(17), 121–133.

https://doi.org/10.3991/ijim.v17i17.39121
Yoo, H. (2022). Building 21st Century Skills Through Technology in General Music Classes. *Journal of General Music Education*, *36*(1), 21–31. https://doi.org/10.1177/27527646221110867
Zainil, M., Kenedi, A. K., Rahmatina, Indrawati, T., & Handrianto, C. (2022). The Influence of a STEM-Based Digital Classroom Learning Model and High-Order Thinking Skills on the 21st-Century Skills of Elementary School Students in Indonesia. *Journal of Education and E-Learning Research*, *10*(1), 29–35. https://doi.org/10.20448/jeelr.v10i1.4336