The Use of Arts Learning Management Technology

Hari Waskito[1], I Wayan Karja[2], Ni Luh Sustiawati[3]

[1,2,3] Indonesian Art Institute Denpasar

ABSTRACT: The role of technology in arts learning management is very significant, bringing new opportunities, challenges, and unlimited potential. Some important points related to the role of technology in arts learning involve digital learning, innovation, computational skills, digital-based education, and collaboration. The digital era allows students and teachers to communicate and interact efficiently, creating a more interactive and inclusive learning environment. The development of innovative art learning models using technology, such as audiovisual media, has a high potential for exploring knowledge. Computational skills become important in the digital era, including understanding technology and communication. The concept of digital-based education, including the use of technology in music learning, brings transformation in education. Collaboration between students and teachers is enhanced through technology, creating a learning environment rich in interaction and collaboration. Overall, technology plays an important role in arts learning management, providing a variety of opportunities and challenges that encompass aspects of education such as communication, innovation, and collaboration.

KEYWORDS: Arts learning, technology, innovation, digital learning, collaboration.

INTRODUCTION

Traditionally, the use of arts learning management, especially processes of learning in the villages, analyzing children's art learning process has been done psychologically, freely, and creatively (Karja, 2019; Karja, 2023). However, in the era of globalization and advances in information technology, art education is undergoing a significant transformation through the use of art learning management technology. Integrating technology in the context of arts learning does not only include conventional approaches but also reflects an evolution in learning methods, strategies, and approaches. Digital learning is a system that uses information technology to support the learning process. According to Williams (1999), digital learning provides various possible learning design scenarios, where students and teachers can interact and learn efficiently. The use of technology in the form of digital learning has opened the door to accessing arts education resources more dynamically and interactively. Through digital platforms, students can access various learning materials, creative assignments, and sources of inspiration from around the world. Digital learning also allows the use of multimedia, such as images, videos, and simulations, to improve understanding of art concepts. Digital learning is a learning process that makes innovative use of digital tools and technology during teaching and learning activities, often referred to as technology Learning (TEL) or e-learning. Through the exploration of digital technology, educators have the opportunity to design more interesting learning experiences, which can be implemented both in face-to-face learning and entirely in online formats.

According to Muhammad Aji Daffa (2023) Along with technological advances, arts and culture education has also experienced a significant transformation (Arts learning management technology encourages innovation in teaching and learning approaches. Teachers can combine creative apps and software to design learning experiences that engage and motivate students. This innovation opens up opportunities for deeper exploration of art, develops creativity, and stimulates students' imaginations. With increasingly advanced developments, increasing dependence on the use of computing technology in everyday life (Yuliana Ardiyanti, 2018). The use of technology in arts learning not only contributes to the development of artistic skills but also improves students' computational skills. An understanding of design software, image processing, and creative applications is an integral part of today's digital literacy, equipping students with relevant skills in the digital era. Digital learning is a form of information technology that is applied in the field of education in the form of cyberspace or can also be called learningE-learning, (Bambang Sucipto and Kustandi, 2011) The concept of digital-based education in arts learning management creates a flexible and open learning environment. Through online platforms, students can access learning materials anytime and anywhere, enabling independent learning that is tailored to each student's needs.

The use of arts learning management technology also encourages collaboration between students, teachers, and even the global artist community. This collaboration can occur through joint art projects, online discussions, or the exchange of ideas via digital platforms,

The Use of Arts Learning Management Technology

creating a broad and supportive learning network. By utilizing the potential of technology in arts learning management, education can become more inclusive, interactive, and relevant to the demands of the times. This not only provides new insights into understanding art but also forms a generation that is ready to face future challenges with the necessary skills.

METHODOLOGY

The most appropriate research method to explore this article is the qualitative research method. The article examines the impact of social media on social interaction and information processing, requiring a more in-depth and descriptive approach. The qualitative approach allows the exploration of concepts in research problems and highlights the research process based on a theoretical basis that is strengthened by facts in the field. Qualitative research methods can use various data collection techniques, such as narrative, phenomenology, grounded theory, ethnography, document study, observation, interviews, and case studies. Thus, qualitative methods can provide deeper insight into the influence of social media on social interaction and information processing.

RESULTS AND DISCUSSION

Learning is considered an important pillar in advancing a nation's competitiveness, and therefore, improving the quality of the education sector is imperative. This fact reveals that gaps in the quality of education are the main factor that needs to be considered to improve the overall quality of education. This quality gap does not only come from limited facilities and infrastructure, and limited human resources, but also from a curriculum that is not yet fully ready to face the future. Therefore, the establishment and development of information and communication technology in learning not only follows global trends but is also a strategic step to increase the accessibility and quality of educational services to the community, both now and in the future.

The use of information and communication technology in learning must be directed at establishing an integrated education system capable of building an independent, dynamic, and advanced nation. To achieve this, all components of human resources need to prepare themselves not only in terms of thinking but also in behavioral orientation, attitudes, and value systems that support the development of information and communication technology. This entire process is the key to success in forming a society that is adaptive to technological change and can optimize educational potential for the progress of the nation as a whole.

The introduction of Arts Learning Management Technology (TMS) is one of the important innovations in arts and culture education that plays a key role in supporting the preservation of cultural heritage and skills-based arts education. TMS allows organizing, managing, and accessing information about learning, as well as facilitating communication between teachers, students, and other stakeholders
The following are some important points in introducing TMS. Technology makes it possible to create digital copies of historical artifacts with high precision, which is beneficial in preservation efforts and the use of 3D technology to prevent damage. Three-dimensional scanning technology enables the conservation and digitization of valuable works of art that have existed for as long as possible. TMS supports learning in distance education, which is of relevance to the view of inclusive education and adaptive learning. For example, learning management for music arts education subjects at Kanisius Muntilan Middle School, Magelang Regency uses learning management technology to optimize the learning process. (Thesis: Sugeng Wiyono, 2013). Learning management technology also supports the development of learning design, which involves understanding learning and learning theories, as well as the use of technology in the design and development of learning systems.

In the context of arts education, the use of TMS is very important to develop student potential, uphold creativity, and preserve cultural heritage for the future. By using technology wisely, we can form a society that is more appreciative of arts and culture, and open to progress in the fields of arts and culture. Utilization of Arts Learning Management Technology Effective use of digital learning can be the key to increasing the productivity of learning activities. Teachers or educators can achieve this by integrating the basics of using digital learning. One effective approach is to link digital learning with offline learning. When students can connect material learned in class with material obtained online through digital learning, this can increase their understanding of engineering concepts more easily. The relationships formed turn digital learning into a relevant and rewarding experience.

Next, it is important to understand and master the practical application of the knowledge gained. Learning that is only based on theories without practical application can be boring and less productive. By integrating real-life demonstrations, scenarios, and artificial simulations into digital learning, students can understand and apply their knowledge more effectively. This approach provides a thorough understanding of a particular material. Effective digital learning also requires continuous feedback and analysis of progress. By using assessments and tests, students can assess their knowledge and measure their progress. Digital learning platforms also provide opportunities for learners to provide feedback, suggestions, or complaints, which helps improve the platform as a whole. The existence of this ecosystem provides long-term benefits because digital learning platforms gradually adapt to more specific student needs.

Social engagement (social engagement) is one of the main advantages of using digital learning platforms. Students can socialize, collaborate, and interact with fellow students on online platforms. They can work together, gather learning resources collaboratively,

The Use of Arts Learning Management Technology

and achieve learning goals together. This social engagement can be enhanced through interactive features that allow students to engage in group learning with higher intensity. Learning through a blended approach (mixed approach) shows positive results in improving students' knowledge retention and learning skills. Blended learning programs, which combine digital learning with other learning media such as videos, podcasts, and multimedia, can increase learning outcomes. This media integration can provide variety and enrichment to digital learning, giving students a more holistic and in-depth learning experience.

According to Kenji Kitao (1998), there are at least three potentials or functions of digital learning that can be utilized in everyday life. These functions include the role of digital learning as a communication tool, information access tool, and educational tool. Kitao explains in more detail about these potentials as follows: Potential Communication Tools1, Information Access Potential2, Education and Learning Potential3. Variety of Arts Learning Management Technologies. Mobile Learning or M-learning is a form of learning delivered or supported by mobile technology, such as smartphones (Traxler, 2007). This concept allows students to learn anytime and anywhere, as long as they have their mobile devices with them. Traxler (2007) identified six categories of mobile learning, ranging from technology-driven mobile learning to remote mobile learning. Mobile, wireless, and handheld technologies are used in a variety of contexts, such as academic settings, connected learning classes, and supporting mobile training. Mobile learning is also developing in informal, personalized, and conditioned contexts, where mobile devices are enhanced with additional functions to provide a richer learning experience.

Along with the development of computer and mobile technology, the mobility of technology, students, and learning has become an important basis for M-learning (El-Hussein & Cronje, 2010). The use of mobile learning is increasing in various sectors, including schools, higher education institutions, and workplaces. Mobile technology companies and educational institutions are exploring how to leverage mobile devices to improve productivity and curriculum design. In this context, it is necessary to develop digital content that supports mobile technology devices, such as smartphones and tablets, to meet the needs of students (Ting, 2005). YouTube videos, as a form of content that is easily accessible via mobile devices, can be a solution to support mobile learning.
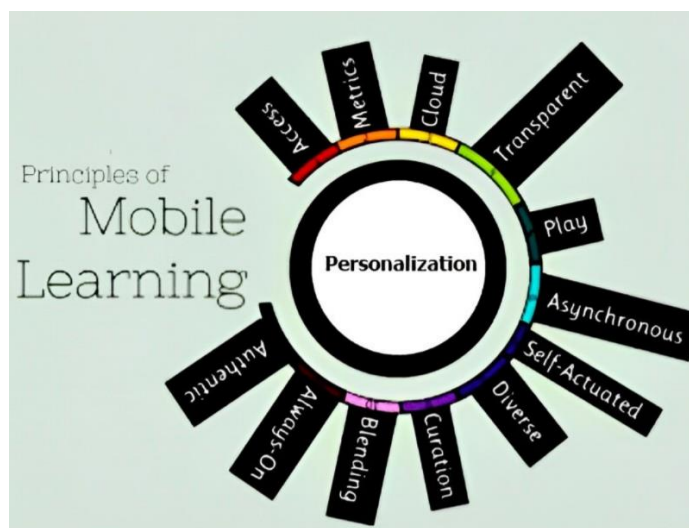

Figure 1. Principles of Mobile Learning
(**source:** https://classroom-aid.com/2012/11/26/mobile-learning-is-aboutself-actuated-personalization/)

Based on the illustration above, the principles of mobile learning (smartphone-based learning) can be described as follows. These principles include personalization of access, use of metrics for measurement and evaluation, utilization of cloud technology for data storage and access, transparency or open nature in information access, game-based approach to increase engagement, asynchronous nature that allows indirect learning, focus on actualization learners, prioritizing individual differences, curative nature by overcoming obstacles, blending mode that integrates various learning methods, always-on characteristics that allow endless access, and authentic nature to guarantee the authenticity of the learning experience.

Game-based learning(Games Based Learning), globally, in 2013, the video game market approached a value of 93 billion dollars (Gartner, 2013). As digital gaming has become a common phenomenon throughout the world, there has been growing interest in utilizing digital gaming for educational purposes. Games-Based Learning (GBL) focuses on using games as learning tools, not just for entertainment. For those involved in GBL, a primary focus is identifying contexts and conditions that support the integration of digital games in learning environments, both formal and informal. Educational experts recognize several features of games that enable them to be used as learning tools, including active learner participation, motivational appeal, real-world experience, provision of context, significant feedback on learner performance, interactivity, learner-oriented, and authentic learning. (just-in-time learning). The use of games in the learning context is relevant to various research and views from experts such as Dickey

The Use of Arts Learning Management Technology

(2005), Prensky (2003), Arena and Schwartz (2013), Gee (2003), Shute (2011), Squire (2008), Gee (2003), 2005), and Shaffer (2006) who highlight various positive aspects ofGames-Based Learning.

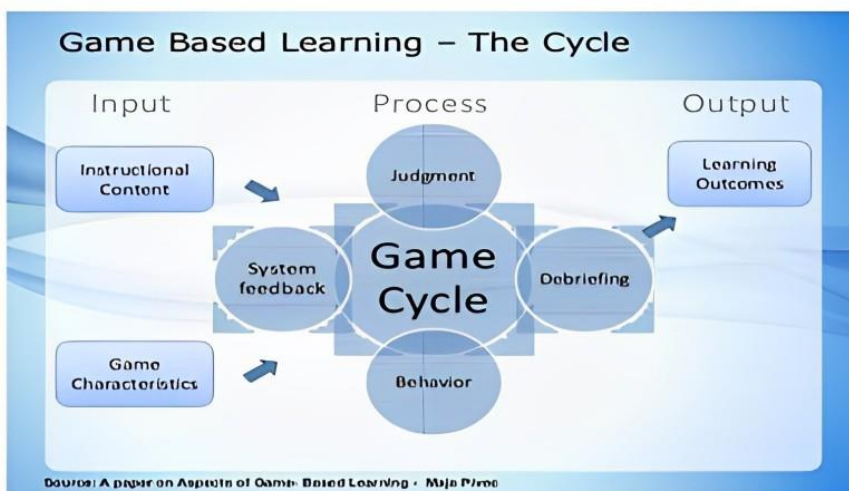The GBL cycle can be explained through the following illustration:

Figure 2. Cycle of Game-Based Learning
(**source:**http://InteractiveLearning/building-learning-games-using-rapid-interactivity)

The GBL cycle can be divided into three main components, namely Process, Input, and Output. Input consists of two elements, namely the instructional content in the game being designed and the game characteristics that correspond to the content. Meanwhile, the process involves assessment or judgment, feedback, behavior expected from students when involved in the game, and discussion sessions. The final component is Output, which includes the expected results after students undergo learning activities using GBL.**3. "Cloud" Based Electronic Learning or *Cloud.***

The concept of cloud computing or Cloud Computing is currently becoming very popular, where this model allows the joint use of resources such as networks, servers, storage media, applications, and services (Mell & Grance, 2011). The advent of cloud computing resulted in changes in software distribution, allowing users to run word processing applications, for example, through a web browser.

Figure 3.Cloud Computing Service
(**source:** https://www.startupgrind.com)

As seen in the illustration above, cloud computing is generally divided into three basic services, namely software as a service (SaaS), platform as a service (PaaS), dan infrastructure as a service (IaaS). Software as a service allows users to directly use the application or software that has been provided without the need to manage the infrastructure behind it. For example, Google Drive provides online file, document, presentation, form, and spreadsheet storage services. Other services, such as Microsoft, present similar options through Office 365 and Microsoft One Drive. In addition, for those who need image or video processing, Adobe provides the Adobe Suite application which can be accessed via Adobe Creative Cloud. Thus, cloud computing makes it easier for users to access and use these applications without having to think about the complexity of managing infrastructure behind the scenes.

Social media is a very familiar element in everyday life, where every day we routinely use this platform to interact with friends, family, and even between students and teachers. The ease and speed of conveying information make social media an efficient means

of interaction. Playing on social media, such as Twitter, Facebook, and Instagram, is included in our daily habits. The existence of various social media provider sites allows various types of interaction, from sharing photos on Instagram to communicating via various chat applications such as Facebook Chat, Line, WhatsApp, Yahoo Messenger, zoom, Google Meet, and Skype. The use of social media is not limited to playing games, viewing friends' photos, or commenting on statuses. Social media is an online platform where users can participate, share, and create content such as blogs, social networks, wikis, forums, and virtual worlds. Through social media, users can easily communicate, send letters, or even make video calls without having to go through conventional processes such as post boxes. An illustration of social media users per month shows that in 2019, Facebook, with more than 2 billion monthly users, hosted more than a quarter of the world's population, making it the largest social media platform compared to others.
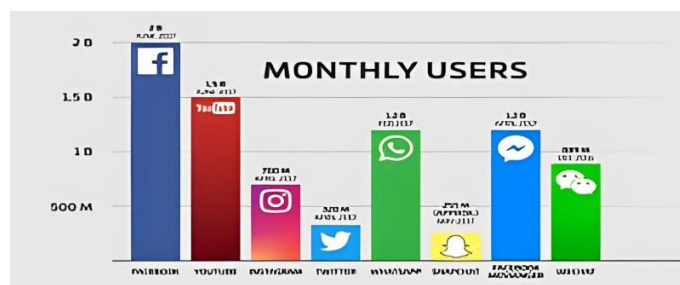

Figure 4 Social Media User Data Per Month in 2019
(source:https://www.bigcommerce.com)

The emergence of social media in recent decades has changed the way we interact and process the information around us. The use of social media is increasing along with the popularity of mobile devices that support social media applications. Social media is an application of Web 2.0, which is defined as a collection of internet-based applications that form the ideological and technological foundation of Web 2.0, enabling the creation and exchange of user content. A variety of social media technologies support a variety of activities, including audio, video, text, and images, with different functional capabilities. Examples of social media technology involve activities such as creating a profile, publishing, creating, posting, commenting, tagging, and sharing. Some of them are designed for sharing experiences such as blogging, while others are aimed at collaboration and social networking such as Wikis and social networking sites. Facebook, Twitter, Delicious, Blogger, and YouTube are examples of social media technologies that have penetrated schools, higher education, and the workplace. By utilizing social media for digital learning, the function of social media can be applied positively as a medium for socializing.

CONCLUSION

Use of Arts Learning Management Technology shows that the use of technology in arts learning management has a significant impact. Some of the main points emphasized in this journal involve the use of technology in digital learning, innovation, computational skills, digital-based education, and collaboration. The use of digital technology in arts learning, such as digital learning and Enhanced Learning (TEL), provides dynamic and interactive access to arts education resources. Digital media, such as images, videos, and simulations, enhance understanding of art concepts. Arts learning management technology drives innovation in teaching and learning methods. The integration of creative applications and software enables the development of students' creativity and imagination. The use of technology in arts learning not only contributes to the development of artistic skills but also improves students' computational skills. An understanding of design software and creative applications is an integral part of digital literacy. The concept of digital-based education creates a flexible and open learning environment. Students can access learning materials independently through online platforms, supporting learning tailored to each student's needs. The use of technology increases collaboration between students and teachers. Joint art projects, online discussions, and the exchange of ideas via digital platforms create a learning environment rich in interaction and collaboration. Overall, technology plays an important role in arts learning management, providing various opportunities and challenges that include educational aspects such as communication, innovation, and collaboration. Through the use of this technology, arts education can become more inclusive, interactive, and relevant to the demands of the times, forming a generation that is ready to face the future with the necessary skills.

SUGGESTION

In the journal "Use of Arts Learning Management Technology," there are several suggestions that can be implemented to enrich the arts learning experience through technology integration. First, further emphasis is needed on developing students' computational skills in the arts, which can be realized through additional programs and training. Another suggestion is to encourage further research to explore the impact of technology in arts learning with collaboration between institutions or across disciplines. Integrating the latest creative applications and developing innovative learning models is also a focus, accompanied by training programs for teachers to utilize technology effectively in arts teaching. Closer collaboration between students, teachers, and the artist community through

The Use of Arts Learning Management Technology

technology is proposed to support a broader exchange of ideas and learning experiences. In addition, there is a need to develop digital learning platforms that are more interactive and inclusive as well as ongoing evaluation of the impact of using technology in arts learning for improvement and refinement in the future. By implementing these suggestions, it is hoped that arts education can be more dynamic, innovative, and relevant to the demands of the times.

REFERENCES

1) Agustian, N., & Salsabila, U. H. (2021). Peran teknologi pendidikan dalam pembelajaran. Islamika, 3(1), 123-133.
2) Aakash Digital. (2018). Why Digital Education is the In-Thing! Aakash Coaching.
3) Astutiningtyas, R., & Yanuartuti, S. (2020). Relokasi pembelajaran seni dalam bentuk daring online untuk meningkatkan kreativitas selama pandemi covid-19. Jurnal Pelita PAUD, 5(1), 138-145.
4) Ayu Ratih Candra Giri, Tari Selat Segara Gusti. [Link](https://drive.google.com/file/d/1dneDs5PTsAZToqt_lMglqzYipKfR7ZC4/view?usp=drive_link)
5) Dewa Ayu, M. T., Ni Luh, S., & I Gusti Ngurah, S. (2021). PENGEMBANGAN VIDEO PEMBELAJARAN TARI SILA JAYA DI DESA BATUNUNGGUL NUSA PENIDA KLUNGKUNG.
6) Febriarti, G. N. (2021). Eksplorasi Teknologi Digital dalam Pengembangan Media Pembelajaran SBdP Berbasis Kearifan Lokal Seni Tari Guna Meningkatkan Kreativitas Siswa di SDN Ngabean Ponjong. Jurnal PGSD Indonesia, 7(2), 1-16.
7) Fujiawati, F. S., & Raharja, R. M. (2019). Analisis Kesiapan Mahasiswa Pendidikan Seni Mengaplikasikan Pembelajaran Berbasis Online (E-Learning & Mobile Learning). JPKS (Jurnal Pendidikan Dan Kajian Seni), 4(2).
8) Gusti Ayu Erma Yunita Dewi, Ni Putu Ditha Sumaridewi Oka, Video Pembelajaran Masatua Bali [Link](https://drive.google.com/file/d/1ty81uq88aWmv7KGqYhC0g2wp44Z8pdMD/view?usp=drivesk)
9) Gusti Ayu Ratih Candra Giri, Video pembelajaran Permainan Tradisional Juru Pencar. [Link](https://drive.google.com/file/d/14Q9sb7KSqGtDFxcicIxpOVAmbS_42nOf/view?usp=drive_link)
10) Hari Waskito, Agus Made Wira Hadi Kusuma, Video Pembelajaran Menari Dalam Keagungan Budaya Bali. [Link](https://youtu.be/E7E_fBcX4n4?si=ZPfCK8Kh0CQ07xWr)
11) Heru, D. P., Rinto, W., & NI Wayan, M. (2018). Kajian Karya Tugas Akhir Video Pembelajaran Mahasiswa Prodi Pendidikan Sendratasik Fakultas Seni Pertunjukan ISI Denpasar.
12) I Dewa Ayu, M. T., Ni Luh, S., & I Gusti Ngurah, S. (2021). PENGEMBANGAN VIDEO PEMBELAJARAN TARI SILA JAYA DI DESA BATUNUNGGUL NUSA PENIDA KLUNGKUNG.
13) I Komang Restika Dana, Ni Luh Ristianti, Luh Putu Cita Ardiani, Video Pembelajaran Musik Ansambel Sejenis (lagu janger) [Link](https://drive.google.com/file/d/1v7OMgb_SLuv3XH7_qCxYvPHZw1BRa-rS/view?usp=drivesdk)
14) Karja, I. W. (2019). Young Artist Painting: To Learn Painting from Village Community. Sandyakala: Prosiding Seminar Nasional Seni, Kriya, Dan Desain, 1, 143–151. [Link](https://eproceeding.isi-dps.ac.id/index.php/sandyakala/article/view/49)
15) Karja, I. W. (2023). Analyzing the Painting of the Children in Penglipuran Bangli, Bali. International Journal of Social Science and Human Research, 6(01), 752-757.
16) Kurniawan, A., & Mahmudah, F. N. (2020). Pelaksanaan pembelajaran berbasis teknologi informasi dan komunikasi di sekolah menengah kejuruan. Al-Tanzim: Jurnal Manajemen Pendidikan Islam, 4(2), 184-196.
17) Listiani, W., Rustiyanti, S., Sari, F. D., & Peradhanta, I. B. G. S. (2019, October). INOVASI SENI PERTUNJUKAN LOKAL DENGAN TEKNOLOGI DIGITAL AUGMENTED REALITY. In Seminar Ilmiah Nasional Teknologi, Sains, dan Sosial Humaniora (SINTESA) (Vol. 2).
18) Mariati, P., Asmarani, R., Sunanto, S., & Hardiningrum, A. (2021). Inovasi Pembelajaran Seni Berbasis Mobile Learning bagi Mahasiswa Pendidikan Guru Sekolah Dasar. Jurnal Basicedu, 5(6), 5783-5792.
19) Ni Putu Ditha Sumaridewi Okam, Video Pembelajaran Tari Wiranjaya [Link](https://youtu.be/BAvBQl8nZqA?si=lBABQ4hn09zWwrhf)
20) Pratama, U. N., & Herbekti, S. (2021). Penilaian Presentasi Infografis Materi Pedagogi Seni Pertunjukan untuk Mendukung Pembelajaran Zoom Meeting. Educate: Jurnal Teknologi Pendidikan, 6(2), 61-71.
21) Ramadhana, A. E., Supratno, H., & Lodra, I. N. (2020). Liminalitas Pembelajaran Seni Budaya yang Berkelanjutan Dalam Era Digital Native. Naturalistic: Jurnal Kajian dan Penelitian Pendidikan dan Pembelajaran, 5(1), 667-683.
22) Ramdani, N. S., Nugraha, H., & Hadiapurwa, A. (2021). Potensi pemanfaatan media sosial TikTok sebagai media pembelajaran dalam pembelajaran daring. Akademika: Jurnal Teknologi Pendidikan, 10(02), 425-436.
23) Rumapea, M. E. M. (2019). Tantangan pembelajaran musik pada era digital. Gondang: Jurnal Seni Dan Budaya, 3(2), 101-110.
24) Sustiawati, N. L. (2019). Pemanfaatan Teknologi Pembelajaran Dalam Seni Pertunjukan Di Era Digital. In Seminar Nasional Fakultas Seni Pertunjukan (pp. 97-103).

25) Sutikno, P. Y. (2020). ERA DIGITAL? PENDIDIKAN SENI MUSIK BERBASIS BUDAYAâ€ SEBAGAI SEBUAH INOVASI PEMBELAJARAN DI SEKOLAH DASAR. Jurnal Kreatif: Jurnal Kependidikan Dasar, 11(1), 39-49.

26) Widiyastuti, E., & Yuliastuti, M. N. (2022). Pemanfaatan Teknologi Smartphone dalam Pembuatan Media Pembelajaran pada Pembelajaran Daring Seni Budaya di Masa Pandemi. DWIJA CENDEKIA: Jurnal Riset Pedagogik, 6(3), 544-552.