

Running head: DIGITAL TECH FOR ARTS MOTIVATION

Integrating Digital Technology to Motivate and Engage Educators
in Visual and Performing Arts Education: A Mixed Methods Exploration

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Chapter 1: Introduction

New technologies and methods for instruction are continually being developed in the field of education in order to improve the educational experience for students. The use of digital technology in the classroom, particularly in the fields of performing and visual arts, is one area of great interest. These fields, which include theater, dance, music, and the arts, have historically placed a strong emphasis on in-person interactions and practical education. But the emergence of digital tools and platforms has given teachers and students new opportunities for motivation, creativity, and involvement.

The ability to build on the intrinsic motivation and engagement that these technologies promote among students is one of the most important benefits of integrating digital tools into the teaching of visual and performing arts. Using well-known devices and platforms is a great way to grab and hold students' attention in a world where digital natives are accustomed to using technology constantly. In addition, educators may actively engage in the learning process due to the constantly shifting and immersive character of digital tools, which encourages a sense of connection to and interest in their creations (Sharma, 2022).

The use of digital tools in the classroom offers educators an innovative opportunity to improve their craft and strengthen their love of teaching. Through the utilization of multimedia materials, virtual reality simulations, and collaborative web platforms, educators can produce dynamic and captivating learning environments that overcome the constraints of conventional teaching approaches. This promotes their own professional development in addition to enhancing the educational experience for their students (Gess-Newsome et al., 2003).

Despite the potential benefits of digital technology in visual and performing arts education, its implementation and efficacy in motivating students and teachers remain

understudied areas. This dissertation aims to contribute to the existing body of knowledge by exploring the following research questions:

1. How do visual and performing arts teachers perceive the role of digital technology in enhancing student motivation and engagement?
2. What specific digital tools and platforms are being utilized in visual and performing arts classrooms, and how do they impact teacher motivation and learning outcomes?
3. What are the challenges and barriers faced by teachers in integrating digital technology into their visual and performing arts curricula, and how can these be addressed?
4. How can digital technology be leveraged to promote inclusive and equitable learning experiences in visual and performing arts education, particularly for students from diverse backgrounds or with special needs?

By addressing these research questions, this dissertation seeks to provide valuable insights and recommendations for educators, policymakers, and technology developers alike. The findings of this study have the potential to inform best practices for integrating digital technology in a way that maximizes student motivation, engagement, and learning in the visual and performing arts.

In the chapters that follow, a deeper exploration into the specific ways digital tools are transforming visual and performing arts education will take place, examining their impact on teacher/ student motivation, engagement, and achievement, as well as their role in enabling educators to innovate and excel in their craft. Through a synthesis of empirical research, case studies, and insights from leading practitioners in the field, this work aims to shed light on the profound implications of this digital revolution and chart a course for a future where the arts can truly flourish in the digital age.

It is essential to keep in mind that there are possible risks and difficulties associated with integrating digital technology into education. A number of concerns have been expressed about cybersecurity, privacy, and the possibility that technology would amplify already-existing flaws or unfair practices (Molina, 2021). Furthermore, there is a chance that an excessive dependence on technology will replace more conventional hands-on activities and in-person interactions, both of which are crucial for the growth of artistic expression and skills.

This study recognizes the importance of considering the unique characteristics and requirements of visual and performing arts education. Unlike more traditional academic subjects, these disciplines place a strong emphasis on creativity, self-expression, and subjective interpretation. The integration of digital technology must be approached in a manner that respects and nurtures these core values, rather than imposing an overly rigid or formulaic approach.

This dissertation aims to address these concerns by adopting a balanced and critical approach to the investigation of digital technology in visual and performing arts education. Rather than advocating for the wholesale replacement of traditional teaching methods, this research seeks to identify ways in which digital tools can complement and enhance existing practices, while acknowledging and mitigating potential risks and limitations.

Chapter 2: Literature Review

Today's rapidly evolving digital environment has made the use of technology in education a more popular subject for debate and study. The importance of digital technology in inspiring and engaging educators has drawn much attention as educational institutions attempt to keep up with technological improvements and meet the needs of a tech-savvy generation of

learners. The purpose of this review of the research is to investigate how digital technology is being used by educators as a motivating tool to enhance teaching practices, promote professional development, and ultimately improve student learning results.

The introduction of digital technology has completely changed the context of education, providing a multitude of platforms, tools, and resources that could completely change the way educators conduct their profession. The use of digital technology has given educators new opportunities to engage students, differentiate education, and customize learning experiences (Timotheou et al., 2023). These opportunities range from interactive whiteboards and multimedia presentations to online collaboration tools and virtual learning environments.

However, the desire and ability of educators to embrace these innovations will determine how well digital technology is implemented in the classroom. Therefore, it is essential to comprehend the driving forces behind the adoption and successful integration of digital technology into instructional methods among educators. The numerous motivational theories and frameworks that highlight the value of digital technology in raising teacher motivation, job satisfaction, and overall professional development will be addressed in detail in this overview of the literature.

Through an analysis of academic literature, empirical studies, and relevant research, this study aims to provide insight into the methods, approaches, and obstacles involved in using digital technology as a motivating tool for teachers. This study will also examine how the effective integration of digital technology in educational contexts is influenced by elements like administrative support, professional development opportunities, technological infrastructure, and educator self-efficacy.

Ultimately, this literature review aims to contribute to the broader discourse on the intersection of digital technology and educator motivation, providing valuable insights and recommendations for educational institutions, policymakers, and stakeholders seeking to encourage a technologically proficient and motivated teaching workforce.

By seamlessly blending visual and auditory representations, digital tools have unlocked a powerful synergy that transcends the limitations of traditional unimodal instruction. Through immersive multimedia experiences, interactive simulations, and dynamic visualizations, students are exposed to a rich blend of information that simultaneously engages their visual and auditory faculties. This multisensory stimulation promotes deeper cognitive processing, as the complementary inputs reinforce and enrich one another, promoting a more holistic understanding of complex concepts and ideas (Gazioğlu & Karakuş, 2023).

Also, digital platforms enable educators to tailor these multimodal experiences to cater to diverse learning styles and preferences, thereby enhancing accessibility and inclusivity in the learning environment. As a result, the use of technology in educational settings has led to a paradigm shift that allows students to interact with the material in a way that is more natural, immersive, and multifaceted, leading to the development of a deeper and more durable comprehension of the material.

Technology is recognized for its capacity to facilitate multimodal learning by improving the integration of auditory and visual representations (Odena, 2012). Technology supports young people's autonomous development, critical consciousness cultivation, and identity building. According to Finnish researchers Ruippo and Salavuo (2006), using technology in the classroom motivates students to interact and learn about music in general. Furthermore, in the field of general education, research conducted by Karsenti and Fievez (2013), including 300 teachers and

6000 students in Quebec, shows that the usage of iPads in the classroom enhances students' motivation to learn above all else.

In his discussion on the significance of thinking and implementing technology for music education, Bauer (2014) goes beyond technocentrism, which is the narrow focus on the technology alone. It presents the TPACK (technical Pedagogical and Content Knowledge) framework, which considers the interaction of pedagogical, technical, and content knowledge while creating technology-integrated learning experiences. The article describes how assessing how much technology improves or changes learning can be done inside the TPACK framework using the Substitution, Augmentation, Modification, Redefinition (SAMR) paradigm.

Bauer (2014) highlights three potentially revolutionary methods of studying music that are made possible by technology: online learning, musicking with mobile technologies, and the maker movement (DIY technology development). His research underlines how important it is for educators of music to carefully analyze how technology might improve and change the field while preserving conventional methods.

Ventura (2017) discusses the effectiveness of using the mobile app WhatsApp to support a music technology course for students, including those with dyslexia. Her research explores how WhatsApp facilitated knowledge sharing, collaboration, and motivated learning among students. The findings demonstrated that dyslexic students used WhatsApp-enabled solutions to make up for their learning challenges, such as sending audio messages rather than text messages, and that this helped all students' overall learning outcomes.

DeWitt et al.'s (2013) research examined the potential of using YouTube as a tool for teaching and learning in the performing arts. The Fuzzy Delphi technique was utilized by the researchers to obtain consensus from a group of twenty specialists who held positions as

lecturers and teachers in different performing arts disciplines at the Academy of Arts, Culture and National Heritage (ASWARA) in Malaysia. The results show that the experts agreed that YouTube has the ability to share information, teach and learn in the performing arts, and successfully deliver instructional ideas. However, the experts also believed that face-to-face instruction is more relevant than using YouTube alone, and that detailed accuracy of subject matter cannot be fully acquired through YouTube. The study suggests that integrating technology like YouTube with innovative approaches can enhance performing arts education, but it should be done under the supervision of lecturers and coupled with efforts to improve lecturers' and learners' information technology skills.

Magalhães (2018), examined how mobile learning (m-learning) apps can motivate and enhance music education for high school students in Brazil. With a need to incorporate technology and innovation into music teaching, the researchers developed an app called "Ritornello" to deliver music content like texts, images, videos, and quizzes directly on students' mobile devices. The goal was to create a more collaborative, engaging learning environment that prompts deeper research and effective learning by supplementing traditional classroom instruction with mobile tools. An experiment was conducted using the Ritornello app across 9 different classroom sessions with around 25 students each. After every session, students completed an evaluation questionnaire about their experience with the app. The data analysis showed overwhelmingly positive feedback - over 95% found the app user-friendly, coherent with the course content, complementary to learning, and effective for evaluating through quizzes. Most students felt it increased their interest, creativity, and teacher-student interaction.

While the m-learning app proved powerful for motivating students and improving the teaching/learning process, some challenges remained like inconsistent technology access in

schools, the need for more teacher training on mobile tools, and limited student computer access. The researchers concluded that mobile apps have immense potential for education, but require further research on implementation, long-term monitoring, expansion across subjects, ensuring multi-platform compatibility, and studying impacts of extensive technology use on student cognition and behavior. Overall, the experiment demonstrated the promise of harnessing m-learning for inspiring, collaborative educational environments.

Sarikaya's (2022) study examined the self-efficacy of music teachers in integrating technology into their teaching practices. The study aimed to explore how music teachers perceive their own ability to effectively incorporate technology in the learning process. Two hundred and sixteen music teachers from various Turkish cities participated in the study, which examined their assessments of their own efficacy while taking age, gender, school type, and level into account. According to the research, most music educators believe they are moderately capable of integrating technology. Furthermore, the study shows that perceived self-efficacy in technology integration varies according to gender, age, and school type, with male teachers, younger student settings, and private schools showing higher levels.

Sarikaya (2022) discussed the importance of technology integration in music education, emphasizing the need for teachers to adapt to contemporary educational approaches supported by technological tools. Traditional teacher-centered approaches have been replaced by student-centered and practice-centered approaches, where instructional technologies are combined with student-centered methods to enhance the meaningfulness of subjects for learners. The article highlights the five main factors influencing technology integration: hardware and network infrastructure, support, teacher competence and education, perceptions and attitudes, and time and workload. It suggests that effective technology integration in music education can facilitate

blended learning, cultural interaction, and the achievement of musical goals within a shorter time frame. The study also addressed the concept of teacher competence in music education and its relationship with self-efficacy beliefs. Teacher competence is considered crucial for understanding the changing needs of music education. High self-efficacy beliefs among music teachers indicate their confidence in implementing effective teaching practices. The research suggests that self-efficacy beliefs are closely associated with various aspects of teaching, such as classroom management skills, subject area knowledge, instructional technology use, student success, and motivation. It also implies that teachers with strong self-efficacy beliefs are more competent in selecting appropriate teaching methods and techniques, which ultimately contribute to student achievement.

In Juntunen's (2018) case study, a music teacher in a lower secondary school in Finland investigated the use of iPad tablets, in a general music course required for seventh graders. The teacher aimed to find opportunities for innovative and integrated experimentation with music, movement, and technology. The project's primary goal was to encourage student participation and creative engagement in a music classroom by utilizing technology.

Composing is a modern and difficult topic in music education, particularly in nations like Finland where efforts are being made to effectively integrate composition into lessons. Teachers face a significant problem in utilizing the evolving and pedagogically significant technological tools and apps. However, there aren't enough pedagogical strategies in music education to effectively use technology. Juntunen's (2018) study looked at and presented a real-world example of a teacher's search for innovative ways to integrate technology into a music classroom and encourage students to compose original music.

Through the integration of technology and body movement, the instructor in this study challenged conventional approaches to composition and technology use, thereby connecting music composition to broader domains of multimodal and embodied learning and expression. Moreover, the vocal improvisation and movement exercises created a link between using technology and more "traditional" forms of music-making. Educators must encourage creative and integrative experimentation with music, movement, and technology through the use of socio-digital technology.

Currently, there appears to be an effort to rethink and reform music teaching by employing music technology to evolve older methods. Music education practices are actively exploring for new pedagogically useful ways to apply technology, notably mobile devices, and new applications. However, there isn't much proof of wholly original methods (Tobias, 2016).

Taskesen (2019) investigated the academic motivations and academic achievements of pre-service visual arts teachers enrolled in the Division of Art Education at a university in Turkey. The study used the Academic Motivation Scale and employed descriptive analysis, t-tests, ANOVA, and correlation analyses. The findings showed that the pre-service teachers had good levels of intrinsic and extrinsic motivations, and low levels of motivation. Female students had significantly higher intrinsic motivation, particularly in the achievement-related intrinsic motivation dimension, compared to males. While academic motivation levels increased from first year to fourth-year students, no significant differences were found based on class level. The relationship between academic motivation and academic achievement was low. The study highlights the importance of creating learning environments that positively contribute to the motivation levels of pre-service visual arts teachers and suggests further qualitative research to

comprehensively understand the relationship between motivation and achievement in this population.

Ruthmann (2007) discussed his observations and own experiences from using online collaboration tools in his own music education classes, including wikis, podcasts, and blogs. To demonstrate the potential uses and advantages of these tools in facilitating peer teaching, peer feedback, collaborative music learning, and the development of online media galleries and collaborative spaces, he offered anecdotal evidence and descriptive examples.

As an educator who has actively used these tools, Ruthmann (2007) has direct knowledge and practical competence that informs his thoughts and recommendations. The approaches offered in this research are carefully matched with the main objective of using online collaboration tools to improve music education experiences both inside and outside of the conventional classroom's physical and temporal limits. Ruthmann also used a variety of prior research studies and projects that have made use of online collaboration technology in music education settings for inspiration, even if he does not follow any research technique.

Giebelhausen (2015) examined the utility of social media platforms in secondary general music education. The author reflected on his own journey of incorporating technology and social media into the teaching practice, noting how it has allowed one to expand on personal learning networks and connect with a broader community of music educators.

The personal learning network (PLN) and the social classroom are two important ways that social media can be used in the music classroom, according to the research. Giebelhausen (2015) discusses how social media sites like Facebook, YouTube, Pinterest, and Twitter may be used to curate content, establish connections with classmates, and give students access to learning opportunities outside of the traditional classroom. His study also offered music

educators specific suggestions for social media channels, groups, and hashtags. The study promoted the thoughtful incorporation of social media to improve relevance, student engagement, and customized instruction in music education.

The studies highlighted the potential of technology integration to enhance motivation, engagement, and collaborative learning in visual and performing arts education. Various tools like mobile apps, online platforms, and social media were found to facilitate multimodal learning, knowledge sharing, and creative expression among students. However, challenges such as inconsistent technology access, the need for teacher training, and balancing technology with traditional instructional methods were also identified. The research suggests that thoughtful integration of technology, coupled with innovative pedagogical approaches, can revolutionize arts education by fostering student-centered, practice-oriented, and culturally inclusive learning environments.

Chapter 3: Methodology

Research Design

This study will use a convergent parallel mixed methods design in order to obtain a thorough grasp of how music educators maintain motivation when using digital technology into their instruction. According to Creswell and Plano Clark (2018), this strategy involves gathering and analyzing quantitative and qualitative data simultaneously, combining the findings, and leveraging the combined advantages of the two approaches to more thoroughly answer the research questions. This design was supported by the fact that the complexity of the phenomenon being studied could not be adequately captured by either quantitative or qualitative tools working

alone. A more complex and multifaceted viewpoint can be obtained by combining statistical data with insightful contextual information.

Quantitative Strand

The quantitative component will consist of a cross-sectional survey administered to a sample of K-12 music educators across the United States. The survey will gather data on participants' demographic characteristics, technology integration practices, perceived barriers and facilitators, motivation levels, and other relevant variables. Validated psychometric scales will be employed to measure key constructs such as intrinsic motivation (Fetters, 2020) and technology self-efficacy (Ivankova, 2014). This data will enable statistical analysis to identify significant factors, relationships, and potential predictive models associated with music educators' motivation in technology-enhanced teaching contexts.

Qualitative Strand

The qualitative strand will involve semi-structured interviews with a purposefully selected subset of survey participants representing diverse perspectives and experiences. This will allow for an in-depth exploration of music educators' lived experiences, challenges faced, coping strategies employed, and perceived impacts of technology integration on their professional motivation. The interviews will be recorded, transcribed verbatim, and subjected to thematic analysis (Braun & Clarke, 2006) to identify recurring patterns, themes, and insights that may not be captured by the quantitative measures alone.

Integration of Quantitative and Qualitative Data

Following separate analysis of the quantitative and qualitative strands, the results will be merged and integrated using complementary techniques (Fetters, 2020). Specifically, the quantitative data will be used to identify statistically significant factors and relationships, while the qualitative findings will provide contextual depth, nuance, and explanatory power. The integrated analysis will seek to construct meta-inferences that synthesize the strengths of both datasets, offering a more comprehensive and holistic understanding of the phenomenon under study (Tashakkori & Teddlie, 2010).

Participant Selection and Sampling

For the quantitative strand, a stratified random sampling strategy will be employed to ensure representation of music educators from various geographic regions, school settings (e.g., urban, suburban, rural), and grade levels taught. Power analysis will be conducted to determine the appropriate sample size for achieving adequate statistical power and detecting meaningful effect sizes.

For the qualitative strand, a purposeful sampling approach will be used to select information-rich cases that can provide in-depth insights into the research questions (Patton, 2015). Maximum variation sampling will be employed to capture a diverse range of experiences, perspectives, and contexts within the music educator population (e.g., varying years of experience, technology proficiency levels, school resources).

Data Collection and Analysis Procedures

The quantitative survey data will be collected using a secure online platform and analyzed using appropriate statistical techniques such as descriptive statistics, inferential tests (e.g., correlation, regression), and structural equation modeling, as warranted by the research questions and data characteristics.

The qualitative interviews will be conducted either in person or via video conferencing, depending on the participants' locations and preferences. The interviews will be semi-structured, guided by an interview protocol. The qualitative interviews will follow an interview protocol designed to elicit rich descriptions of participants' experiences while allowing for flexibility to explore emergent lines of inquiry. Interviews will be audio-recorded with participants' consent and subsequently transcribed verbatim. The transcripts will undergo thematic analysis (Braun & Clarke, 2006) using a hybrid approach that combines deductive coding based on the research questions and existing literature with an inductive identification of emergent themes grounded in the data itself.

The analysis process will involve multiple coders to enhance trustworthiness through investigator triangulation (Patton, 2015). Coders will engage in consensus discussions to reconcile divergent interpretations and achieve inter-coder agreement. Analytic memos and researcher reflexivity will be employed to document the coding process, decisions made, and potential biases or preconceptions (Kuzel, 1999). Qualitative data analysis software will be utilized to facilitate data management, coding, and analysis.

Integration and Legitimation

The quantitative and qualitative strands will be integrated at multiple points throughout the study, a hallmark of a convergent parallel design (Creswell & Plano Clark, 2018). During the data collection phase, the quantitative survey and qualitative interviews will be conducted concurrently. The analysis stage will involve separate quantitative and qualitative analyses, followed by a merge of the two datasets through complementary techniques such as data transformation, data consolidation, and joint displays (Fetters, 2020).

To enhance the legitimation (validity) of the mixed methods inferences, several strategies will be employed (Onwuegbuzie & Johnson, 2006):

1. Sample integration legitimation: The purposeful selection of qualitative participants from the quantitative survey sample will facilitate meaningful comparisons and complementary analyses.
2. Inside-outside legitimation: Insider perspectives from music educators will be combined with outsider viewpoints from the research team to counterbalance potential biases.
3. Paradigmatic mixing: The study will draw on both post-positivist (quantitative) and constructivist (qualitative) paradigms, capitalizing on their complementary strengths.
4. Commensurability legitimation: Careful consideration will be given to the compatibility and complementarity of quantitative and qualitative methods, constructs, and findings during integration.
5. Multiple validities legitimation: Various quantitative validities (e.g., construct, internal,

external) and qualitative trustworthiness criteria (e.g., credibility, transferability, dependability, confirmability) will be addressed.

Ethical Considerations

This study will be conducted in accordance with established ethical principles and guidelines for research involving human participants. Prior to data collection, approval will be obtained from the relevant institutional review board(s). Informed consent will be sought from all participants, and measures will be taken to ensure confidentiality and data security. Participants will have the right to withdraw from the study at any time without consequences. Potential risks and benefits will be clearly communicated, and steps will be taken to minimize any risks or discomfort.

Positionality and Reflexivity

As a researcher, I acknowledge my positionality as a music educator with experience in integrating technology into my own teaching practice. While this insider perspective can provide valuable insights, it is crucial to remain reflexive about potential biases and preconceptions that may influence the research process. I will engage in ongoing critical self-reflection, maintain an audit trail, and seek external perspectives (e.g., peer debriefing) to enhance the trustworthiness and credibility of the findings.

In summary, this convergent parallel mixed methods design aims to generate a comprehensive and nuanced understanding of how music educators maintain motivation when integrating digital technology into their teaching practices. By combining the strengths of quantitative and qualitative approaches, this study aims to contribute valuable insights to the

field of music education and technology integration, informing professional development efforts and support structures for educators navigating the evolving digital landscape.

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