

THE APPLICATION OF DIGITAL AUDIO TECHNOLOGY IN MUSIC CONSERVATORY COURSES: EXPLORING LECTURER ATTITUDINAL FACTOR

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ABSTRACT

The current study examined the use and integration of digital audio technology (DAT) in conservatory courses for teaching music, focusing on lecturers' attitudes toward technology, with consideration of their acceptance of technology and their propensity to integrate it into teaching; this is then employed as a starting point to examine what factors affect lecturers' attitudes. Nevertheless, many technological tools have been developed concerning the rapid improvement of digital technology and gradually integrated into the classroom teaching process; In other words, music education has undergone considerable changes. However, without the trust and confidence in these DAT tools by lecturers, the successful integration of DAT may not be as straightforward as it seems to be through technological advancement. This study conducted a systematic literature analysis to examine relevant research on educators' opinions toward DAT in music education from 2018 to 2024. The researchers reviewed 37 papers that satisfied the inclusion criteria of this study by searching prominent academic databases, including Google Scholar, Scopus, Mycite, and China National Knowledge Infrastructure (CNKI). The topics of the essays primarily reflected on how digital technologies are used, and what roles they serve in contemporary education while exploring both the promise and pitfalls of digital technology as it relates to educators' attitudes impacted by the infusion of technology into music courses. They analyzed the relationship between lecturers' beliefs, attitude, and their use of instructional technology. In addition, the series of proposed improvement strategies from these papers are extremely important.

Keywords: technology, attitude, music education, music course, technology integration

INTRODUCTION

In recent years, the swift advancement and widespread adoption of digital technology have instigated significant transformations across all sectors. In current society, industrial enhancement focused on digital technology has significantly augmented the productivity of numerous conventional industries, and the beneficial impacts of technology on social and economic advancement are becoming increasingly evident. At the same time, in this context of unprecedented change we have also witnessed unprecedented developments and changes within the domain of education itself. A growing number of technologies are gradually being integrated into traditional teaching practices, especially in the curricula of many conservatories for professional musicians where the importance of DAT is becoming more and more important.

Digital audio technology (DAT) is either supplementing traditional ways of teaching or standing in for them as an increasing number of technologies become integrated into the music course. An evolution that brings new experiences and opportunities to educators and learners alike, but also raises questions about the future of music education.

The Transformation of Music Education in the Digital Age

Since digital technology is so widely used nowadays, it is impossible to overlook how it affects every aspect of life. Although it benefits numerous industries, it has also significantly influenced individuals' comprehension of technology. Music education is similarly affected by digital technologies. Digital audio technology has been included into the curricula of numerous music institutions, particularly in music performance, music theory, and music composition. The researcher serves as a music production lecturer at the Sichuan Conservatory of Music in China. Throughout his pedagogical tenure, he meticulously examined the influence of digital audio technology on the conservatory's curriculum. Thanks to technology, conventional music education classes have acquired renewed vigor. This incorporation of technology has provided a novel experience for both educators and learners. With the popularization of computer technology and the rapid development of digital technology, music education has ushered in unprecedented opportunities, and teaching methods and approaches have been greatly enriched. However, there are significant differences in lecturers' attitudes toward and application capabilities of digital audio technology (DAT). First, not all lecturers can accept the application of DAT in teaching; second, lecturers' ability to effectively apply DAT in the classroom varies; finally, due to the deep-rooted traditional teaching model, the integration of DAT in music teaching faces certain resistance. Therefore, lecturers' individual differences and attitudes toward technology have become key factors affecting the promotion and application of DAT in music education.

According to Demirtaş (2022), Henderlite (2023), Hao (2023) and Caputo (2021), with the advancement of science and technology and the widespread application of computer technology, digital technology has triggered significant changes in music education. The

increasing popularity of technology has transformed the conventional teaching approach and prompted consideration of the efficacy of incorporating technology into music curricula. This phenomenon has created new opportunities for the advancement of music education. Researchers have observed that numerous music institutions have enhanced their teaching methods by employing DAT to address deficiencies in traditional approaches. The amalgamation of technology and conventional music pedagogy has emerged as a prevailing trend in contemporary music education and has garnered widespread acknowledgment.

The Importance of Exploring Lecturers' Attitude in Music Education

Currently, digital audio technology offers numerous digital tools and pedagogical solutions for music education; however, the successful integration into existing music curricula primarily hinges on the lecturers' attitudes toward technology and their self-efficacy. Despite a wide range of tools and methods, Henderlite (2023) recognizes that the attitude toward technology and self-efficacy of a lecturer is crucial in the effective integration of technology use in teaching. Research shows that students with previous relevant knowledge or a positive attitude toward the new technologies are more likely to successfully integrate these into their music teaching.

Research by Yang (2022), and Williams et al. (2023) concluded that the implementation of technology is essential for effectively improving teaching outcomes in music courses. However, for using technologies to be effective, the lecturer must have an affirmative attitude to enliven the enthusiasm of students and even learners. As a result, each lecturer needs to consider how best to utilize technology in the classroom to ensure that students have the best possible learning experience. This is the only way to bring technology into the classroom effectively. Thus, music educators "initiatives" permitting technology-enabled teaching and their self-efficacy beliefs as to whether they can do it —along with their attitudes toward working with digital audio in music education— form the underlying pillars for shaping its integration. According to Brittain (2023), having self-efficacy has an important role for the teacher looking to use technology, as well as whether they are open to using new tech challenges with teaching. An educator who is positive and experienced with technology tends to know what can be done, when, and how, as well as willing and able to do it.

Therefore, the researcher aims to explore the application of technology in music education by studying the attitudes of lecturers at the Sichuan Conservatory of Music toward digital audio technology.

RESEARCH BACKGROUND

With the rapid development of science and technology, more and more technologies are integrated into the classroom. Music education is also constantly improving and enriching. The emergence of digital audio technology (DAT) has not only brought profound changes to music production and performance but also significantly enhanced the modernization of music education. By integrating technology into teaching, educators can enrich course content and

form, thereby improving the classroom experience of lecturers and students and the quality of teaching. Yang (2020) posit that using technology, especially music software like Sibelius (music software for notation), Pro Tools (a recording and post-processing software), Cubase and Logic Pro (two music software for comprehensive digital audio workstations for composing, recording and mixing). This music software has greatly improved the efficiency of music education classroom teaching; it can make abstract concepts more concrete and understandable to students. It clarifies complex theoretical concepts and creates a more engaging and interactive learning environment. The integration of this technology facilitates the conversion of theory into practice. Enhancing students' comprehension of music knowledge will transcend mere theoretical engagement, fostering greater classroom interaction and facilitating the acquisition of practical abilities, so significantly elevating the overall quality of instruction.

Digital Audio Technology

Digital audio technology (DAT) is a technique that processes and conserves audio signals and information in a digital format, according to Palumbo (2019). This technology produces a work platform called the digital audio workstation (DAW), which can handle sound information on a computer in a comfortable way by converting digital audio signals into binary data that can be processed by a computer. DAW can be used to effectively monitor, analyze, and process audio data instead of the laborious physical processing that was used in the earlier days of analog audio technology. Only personal computers and music software are now necessary, but in the past, numerous music production facilities and equipment were needed for complicated equipment and processes. The current state of technology has significantly reduced the barrier to entry for DAT, leading to an increasing number of industry professionals utilizing this technology. As stated by Giddings (2020), Pondaco (2021), and Blasko (2020), DAT has significantly improved everyday life and boosted musicians' involvement in music. Their findings indicate that DAT facilitates the production, editing, and dissemination of audio content, hence increasing the number of individuals involved in music education, performance, and creativity.

Innovations in Music Education through DAT

Integrating technology into music courses also results in much change in how educators are accustomed to the music teaching Model. These changes have encouraged the shifts in the paradigm of music education from the traditional model to the digital model. The rapid development of social productivity today. Leveraging the accessibility and appeal of digital technology will allow more music courses to see the benefits that technology can provide. When it comes to example, in the context of music courses with the help of digital technology the teaching knowledge can be clear and student interaction can also increase. Digital technology further enhances this process for understanding in teaching environments because it gives greater clarity and focus to difficult music concepts and theories, helping students better understand these ideas while applying them intuitively in real-world musical scenarios. DAT supports effective music classes, specifically provisioning the required digital tools and operating techniques that will make students succeed in today's ever-evolving music industry

powered by music software. This teaching methodology enables students to bring their knowledge of music theory and concepts, and develop mastery and confidence while practicing them, which ultimately prepares the students for doing work in the real world. As Yang (2022) suggests, there are a lot of benefits of technology in music education, thus, the convergence of technology and teaching offers innovative possibilities for pedagogy and educational advancement. The use of DAT in music courses opens up an opportunity to make the learning environment and teaching scenario more appealing & interactive. Through the provision of this technology, the ambiance of different music courses gets better, and thus it helps in reaching the basic target of good teaching effectiveness. Digital technology facilitates an intuitive grasp of music theory, converting abstract concepts into concrete understanding for students. This technology boosts students' comprehension and retention of music theory while fostering creativity and collaboration among them. Yang asserts that the ongoing advancement and implementation of digital technology in music education will enhance pedagogical approaches and augment instructional efficacy.

Integration of Digital Audio Technology in Music Conservatory Courses

DAT is assuming a progressively significant role in diverse courses at music conservatories, particularly in essential areas like music performance, music theory, composition, and music production. Wang (2022) asserts that technology significantly enhances and refines the content of higher education music courses, hence enhancing teaching quality. To encourage greater integration of these technologies in other courses in the future, this study investigates the teaching tactics and methods of incorporating DAT into various music courses.

DAT in Music Performance Courses

In music performance courses, DAT is used for real-time audio processing and feedback. The lecturer can record and analyze students' learning by using a digital audio workstation (DAW). Through instant playback and visualization of audio waveforms, students can feel their problems in pitch, rhythm, and timbre. According to the research of Fan (2021) and Cui & Ju (2024), by checking the audio waveform, spectrum, and related visual data of sound in music classes, lecturers can better understand students' volume, pitch, and rhythm performance and give targeted guidance to improve their singing, playing, and other music performances more effectively and accurately. In addition, DAT can also enhance the sense of stage performance by quickly establishing a virtual band accommodation or background sound effects to simulate the concert environment so that students can better adapt to the performance needs of the stage.



Figure 1: *A singing lecturer uses DAW to guide students*

DAT in Music Theory Courses

The present music theory courses primarily emphasize the analysis and deconstruction of audio through DAT, utilizing software for logical theoretical inferences. Instructors can utilize DAT to transform intricate music theory principles into visual and auditory representations, so facilitating a more intuitive comprehension and mastery of abstract elements like as harmony, melody, structure, and style in music for students. According to Fan (2021), students can gain a better understanding of abstract concepts in music theory, like rhythm, note value, and harmonic function, by using music software in their lectures. Augment comprehension through the integration of visual and aural components. Furthermore, educators can utilize DAW software to enable students to actively engage in the operation and creation of audio clips that adhere to music theory and concepts, thereby more effectively bridging theoretical knowledge with practical skills, enhancing students' capacity to apply theory in practice, and solidifying their mastery of the course content.

DAT in Composition Courses

Application of DAT in composition courses offers unparalleled convenience for music creation. Instructors can effectively illustrate and instruct students on music composition using Digital Audio Workstations (DAWs). Students can readily experiment with several virtual instruments and sound effects for their music composition. This method of creating can furnish students with prompt feedback. They may audibly perceive the sound effects of their music in real time within the software, enabling them to adjust and explore rapidly. According to Bolívar-Chávez et al. (2021), music software like Sibelius can give students quick feedback on composition by combining visual and auditory feedback. This makes it easier and more fun to teach courses that are about composition.

DAT in Music Production Courses

In music production courses, DAT is a core tool, because, in the digital age, music production is inseparable from DAT. In class, lecturers can rely on DAT to conveniently guide and demonstrate music production for students. During the course, through the visual software parameters, students can be intuitively and efficiently guided to complete the production process from arrangement, recording, mixing, and mastering. Students finally produce complete music works according to the guidance and demonstration of the lecturer. Washington (2023) asserts that music software like Cubase and Logic is essential in music production classes. These software applications are extensively utilized in the processes of arrangement, records, and audio mixing. They hold a crucial position in music production courses. Students get technical music production abilities from this immersive learning approach, which also encourages innovation and creativity.



Figure 2: *Students use music software in a music production class.*

By effectively integrating digital audio technology across these courses, lecturers can enhance teaching effectiveness and help students establish a cohesive connection between technical operations and artistic expression, thereby comprehensively improving their professional abilities. This integration of technology and pedagogy also paves the way for new approaches in the future of music education.

METHODOLOGY

This study examined existing research on lecturers' attitudes toward digital audio technology (DAT) in music education using a systematic literature review approach. It reviewed relevant papers, journal articles, and reports published between 2018 and 2024. To provide a comprehensive overview, major academic databases such as Google Scholar, Scopus, MyCite, and China National Knowledge Infrastructure (CNKI) formed the basis for our search strategy. The databases were selected for inclusion because they provide a comprehensive collection of academic literature on the topic across disciplines and countries.

This search was conducted for the main question of this study (i.e., how lecturers' attitudes toward technology acceptance affect lecturers' implementation of technology in music courses) using specific keywords: "lecturers' attitudes toward technology," "digital audio technology in music education," and "technology adoption in music courses." These keywords were selected because we only focused on studies that incorporated DAT into conservatory courses, with a particular emphasis on the role of lecturers' attitudes in the successful adoption and implementation of this technology.

The researchers screened 37 studies based on title and abstract relevance. The criteria targeted studies that: reported on the use of technology in music instruction; lecturers' acceptance of DAT and the relationship of lecturers' attitudes toward the integration of technology into music instruction; and explored factors that influenced music conservatory lecturers' adoption of technology in music courses. Only studies that directly explored the role

of lecturers in implementing DAT and provided empirical data or case studies relevant to higher education settings were considered.

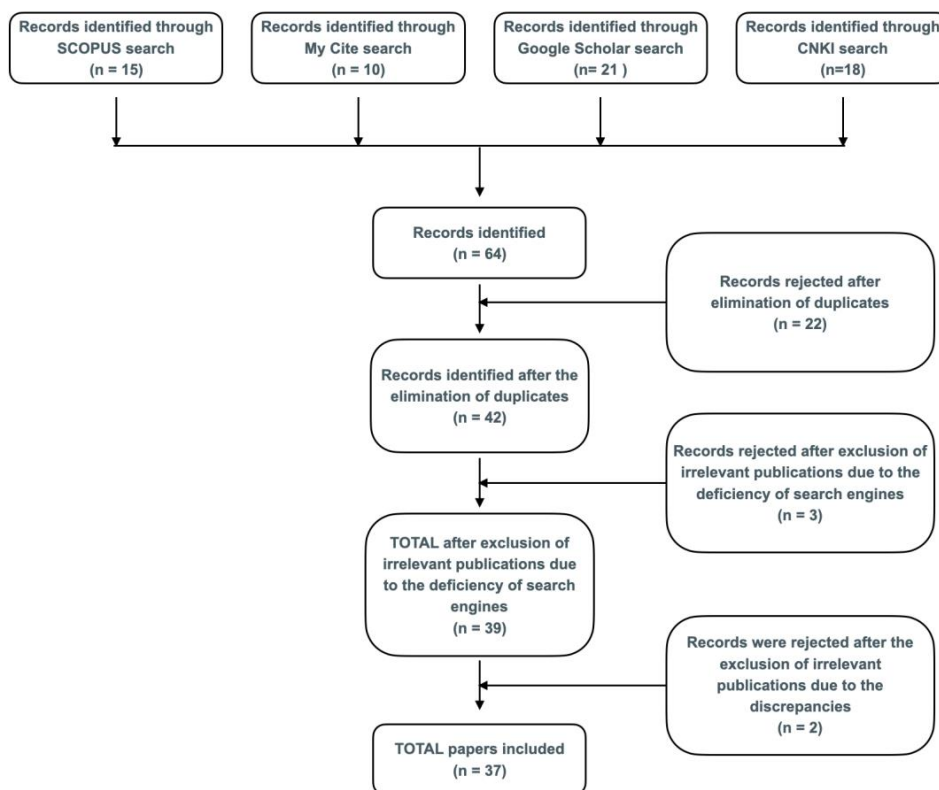


Figure 3: Flowchart illustrating the phases of the literature search.

The researchers examined the methodologies, research environments, and findings of the chosen studies. Both qualitative and quantitative research investigations were incorporated. This research offered objective insights and references to the elements that affect instructors' attitudes toward DAT. This study seeks to achieve a thorough understanding of the potential, problems, and coping methods associated with the integration of DAT in music education by combining information from many sources.

Table 1: Study Selection Criteri

Inclusion Criteria	Exclusion Criteria
<ol style="list-style-type: none"> 1. Published in English and Chinese 2. Published from 2016 to 2024 3. Music education in higher education 4. Qualitative and quantitative research methodologies 5. Research on the use of technology in music education 6. Related to the relationship between lecturer attitude and technology classroom integration 	<ol style="list-style-type: none"> 1. It does not involve the use of technology in music education 2. There is no research on the relationship between instructor attitudes and DAT integration 3. No empirical data or case studies provided 4. Research is not relevant to the study objectives

RESULTS

In this section, the researchers summarized their findings on the impact of instructors' attitudes on the use of DAT in music courses. The literature has generally shown the impact of educators' attitudes on integrating technology, which reflects that instructors' attitudes toward technology play an important role in integrating technology into the classroom. This study comprehensively examined the impact of instructors' attitudes toward DAT on their teaching methods, teaching philosophy, and classroom experience, and also evaluated the various factors that influence such attitudes.

The Importance of Lecturer's Attitude for Music Courses

Most of the articles selected for this study investigated lecturers' views on DATs, specifically their attitudes and reactions to certain instructional technologies, and their willingness to use these technologies in music courses. The study found that the adoption and integration of DATs in the classroom are influenced by the lecturer's attitude towards DATs, and students ultimately benefit or suffer from the impact of such classroom teaching effectiveness. This is evident from the number of DATs accepted by each lecturer. Previous research has shown that lecturers' positive attitudes towards technology are positively correlated with the adoption of such technologies in music classes. About 21 articles (57%) in the systematic literature review mentioned that lecturers' attitudes directly affect how they adopt and use technology in the classroom. This evidence suggests that lecturers' attitudes are related to students' learning styles and can stimulate their interest in technology and related courses. Based on the research of Bolívar-Chávez et al. (2021), the extent of the use of music software applications in courses depends largely on the lecturer's willingness, confidence, and technical skills. Finally, we compare the results with those of previous studies, as Demirtaş (2022), Gaines (2023), Zeng et al., (2022) further emphasized that educators' approach and attitude toward technology is often based on enthusiasm for digital technologies, which is one of the triggering factors for the proper use of technology in classroom units. Therefore, the positive attitude of lecturers is a prerequisite for the effective integration of DAT into music courses.

The Impact of Lecturer Attitudes on the DAT Application

In this study, about 15 publications (41%) believed that lecturers' attitudes towards DAT affect their tendency to use these technologies in class, which greatly affects students' learning outcomes and teaching effectiveness in class. According to Caputo (2021) and Ovcharenko et al. (2020), lecturers' attitudes can directly affect teaching effectiveness and students' classroom experience. Nevertheless, some educators in music education institutions have a negative attitude towards DAT, and even oppose the use of technology because they are personally accustomed to traditional teaching methods, which seriously hinders the advancement of effective technology integration in the classroom. Hao (2023) pointed out that some music educators have a poor understanding of technology. They are accustomed to and insist on relying on traditional teaching methods, which show obvious resistance, and such an attitude hinders the integration of digital technology in the

classroom. In addition, this negative attitude of lecturers will also directly affect students' classroom participation and learning interest. Therefore, it is very necessary to investigate teachers' attitudes towards DAT, which will have a positive effect on exploring the factors that affect educators' attitudes towards technology. Giddings (2020), Demirtaş (2022), and Washington (2023) thought that the availability of teaching resources, their technological proficiency, and the opportunities to incorporate technology into the classroom all had an impact on educators' views on technology. In summary, teachers with positive attitudes toward technology tend to use DAT to enhance music classroom interactivity and engagement, while teachers with negative attitudes toward technology may resist DAT, thereby hindering the positive role of technology in music classrooms.

Factors Influencing Lecturers' Attitudes

In this systematic literature review, about 10 articles (27%) explored and summarized some factors that affect lecturers' attitudes toward technology, including factors such as growth experience, personality, and gender. According to a study by McLay & Reyes (2019), although most music educators recognize the importance of technology in education, some lecturers show negative attitudes towards technology due to various factors. A study by Xiao (2021) showed that although most music teachers recognize the importance of technology in the classroom, some educators still find it difficult to adopt a positive attitude toward it. This is partially because educational institutions that employ lecturers do not offer them enough training opportunities and policy support. In addition, these studies also found that teachers' gender, age, and technological proficiency were significantly correlated with their attitudes toward DAT. Caputo (2021) observed that the differences in lecturers' attitudes towards technology highlight the complexity of integrating technology into education, especially in terms of the interaction of gender, culture, and social dynamics. Research conducted by Gan et al. (2021), Williams et al. (2023), and McLay & Reyes (2024) showed that lecturers' emotions, attitudes, and values play a vital role in their ability to successfully integrate technology into their instruction. Lecturers who display positive attitudes towards technology are generally more likely to effectively integrate technology into current and future courses, and they tend to continue to explore innovative approaches and additional opportunities for technology integration. Henderlite's (2023) research indicates that teachers' self-efficacy significantly influences technology integration in the classroom. Educators with high self-efficacy are more likely to adopt new technological tools. The instructor's confidence in their technological skills is positively associated with the integration of new technologies into the curriculum.

DISCUSSIONS

Currently, despite the increasing number of studies examining the application of digital audio technology (DAT) in music education and the focus on the influence of educators' attitudes on technology integration, deficiencies persist in the study within this domain. Numerous aspects regarding the observation of educators' attitudes remain ambiguous and inadequate. This impedes a thorough comprehension of the influence of instructors' attitudes on their efficacy in adopting and integrating technology, necessitating further investigation.

First, there is a significant gap in the lack of understanding of how lecturers' attitudes toward DAT evolve. While current research provides insights into initial issues and attitudes regarding technology adoption, few studies have investigated how these attitudes are influenced over time using long-term tracking of lecturers' professional development and years of teaching experience. Understanding these shifts can provide valuable data to develop ongoing strategies to foster lecturers' positive attitudes and improve the effective use of DAT in music education.

Second, while many studies have explored the impact of lecturers' attitudes on technology adoption, limited research has explicitly linked how differences in attitudes influence actual outcomes of using DAT in the classroom. A more comprehensive study is needed to determine how lecturers' attitude levels toward using technology directly influence student engagement during instruction, student-teacher communication, and the overall effectiveness of DAT in enhancing music courses.

Third, the role of institutional support in shaping lecturers' attitudes toward DAT remains understudied. While some studies briefly mention the importance of providing resources, equipment, and training, few studies have analyzed how institutional policies and work climate affect technology adoption.

Finally, little contextual research exists to explore differences in DAT adoption in different cultural and educational settings. Most of the existing literature focuses on specific countries, regions, or institutional contexts, and there are few studies with cross-cultural research.

Integrating digital audio technology (DAT) into conservatory courses has become a trend in music education today. Research found that applying DAT in music courses has greatly improved the quality of music education. However, whether DAT can play its best role in music courses depends largely on the attitude, self-efficacy, and even the gender of lecturers. Exploring how to improve lecturers' strategies in applying DAT in teaching is a task for every music educator. Improving lecturers' attitudes towards DAT will inevitably involve comprehensive consideration of lecturers' technical cognition, including personal experience, technical skills, learning ability, work experience, etc. This joint effort requires the joint efforts of institutions and lecturers to improve. Researchers found that lecturers' attitudes towards DAT can be improved as follows.

First, actively organizing and arranging lecturers to participate in DAT-related technical training and seminars is very effective for educational institutions or music schools. Qin (2023) and McLay & Reyes (2023) emphasized that one of the keys to cultivating lecturers' positive attitudes towards technology is that institutions need to provide a continuous training and evaluation system so that lecturers can learn and practice technology more easily and understand their strengths and weaknesses in technology through the evaluation system, to carry out targeted training. These studies further emphasize the impact of the environment on teaching attitudes and teaching methods.

A good teaching environment and management environment will more effectively promote lecturers to accept technology.

Second, institutions should try their best to provide equipment support for courses so that lecturers can use DAT in the most convenient way and lower the threshold for using technology. According to Waddell and Williamon (2019), the availability of convenient equipment and adequate technological support plays a significant role in motivating lecturers to integrate technology into their teaching. Ensuring such readily accessible resources can reduce the reluctance to adopt new tools and promote a more innovative educational approach.

Third, creating a teaching atmosphere that actively adopts technology is also very important. It is necessary to establish a student-centred teaching purpose for lecturers and let lecturers realise that adopting new technologies is an exploration and attempt to improve teaching quality. Only by embracing technology can we embrace the future. Research indicates that creating an environment that embraces technology can significantly increase lecturers' willingness to accept and experiment using technology. Specifically, when lecturers can develop their Technological Pedagogical Content Knowledge (TPACK) within a supportive and resource-rich environment, they are more likely to integrate technology effectively into their teaching practices.

This approach not only enhances their technical skills but also fosters a positive attitude toward using technology in the classroom. Consequently, lecturers in such environments are more inclined to adopt innovative teaching methods incorporating technology, thereby enriching their students' learning experiences (McLay & Reyes, 2024). Lecturers who lack the above support may find it difficult to learn and use DAT and have a negative attitude, which will hinder the integration of DAT in teaching and even make lecturers rely more on traditional teaching methods.

CONCLUSION

The application of digital audio technology (DAT) in music college courses marks an important development and important trend in modern music education. With the continuous development of digital technology, its effective application in education depends not only on the advancement and popularity of the technology itself, but also on the educators who use these tools. The effective response of lecturers to DAT's positive attitude are all key factors in successfully integrating technology into music courses. Yang (2020), Gaines (2023) and Giddings (2020) believes that technological innovation is crucial in music education. It enriches educational resources, innovates teaching methods, and provides a variety of ways to present music teaching. These technological tools not only increase students' interest in learning, but also effectively promote the development of music education. However, the key lies in how educators can effectively integrate technology into the classroom to provide students with better learning experience and results.

For administrators and lecturers engaged in teaching, future music education needs to think about how to more effectively implement improved strategies for integrating technology into the classroom, more accurately evaluate the impact of technology on music courses, and quickly adjust strategies based on lecturer's feedback. Hao (2023), Demirtaş (2022) and Caputo (2021) explored the significant impact of digital technology on higher education music courses. The study underscores the incorporation of digital technology into music education to enhance instructional efficacy, thus reconciling conventional music pedagogy with contemporary technological advancements. The comprehensive use of DAT in music education necessitates the endorsement of strategic initiatives and policy backing from relevant educational institutions. Music educational institutions can foster a more supportive technology-enhanced educational environment solely through the precise formulation and implementation of targeted technology integration strategies, ensuring that educators and students fully capitalize on the advantages of DAT, thereby enriching the educational experience of music courses and effectively enhancing teaching quality.

To summarize, while technological advancements offer substantial technical support for music education, the human element is the determining factor in the successful integration and application of these technologies in music education. This includes the attitude, confidence, and tolerance of society toward technology. These factors are essential for attaining optimal outcomes of digital audio technology in music education.

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