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Online Teaching Methods, Satisfaction, And Challenges In Conservatory In Music Education Course: The Case In A Chinese University

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ABSTRACT

This study investigates students' satisfaction levels in online music courses, focusing on piano, vocal, and music theory instruction. This study adopted a descriptive correlational design. This research was conducted at the School of Music, Huanggang Normal University, in Hubei Province, China. A total of 298 students were included in the survey. An adopted questionnaire on Online Learning Satisfaction (OLS) tool was utilized, which was administered online. Findings reveal a generally positive attitude towards technology-enhanced education, although challenges such as slow internet speeds hinder the learning experience. Recommendations include implementing interactive and personalized learning approaches, investing in advanced online tools, and improving teacher training. Furthermore, the study suggests the adoption of E-teaching Guidelines to ensure effective online teaching practices. Future research directions include exploring online music performance technologies and assessing the effectiveness of online courses in diverse cultural contexts. Overall, this study underscores the importance of enhancing online music education to provide students with a more engaging and fulfilling learning experience.

Keywords: eLearning, hybrid learning, online learning

INTRODUCTION

The world has now entered the "post-COVID era". The whole mechanism of social functioning has changed. Not only the way people live and work has changed, but also the mode of student learning has changed (He et al., 2014; Mayadas et al., 2009; Sun & Chen, 2016) since the arrival of the internet. Online teaching has quietly changed the traditional teaching model. *Online teaching* refers to delivering educational content and instruction via the Internet (usually using a computer or other electronic device). This can be achieved through various platforms such as video conferencing software, learning management systems, or virtual classrooms. Online teaching can be used as a supplement to traditional face-to-face instruction or as the primary means of providing education to remote or distance learners. This type of teaching can take various forms, including synchronous courses, where the teacher and students are online at the same time to participate in real-time discussions or activities, and asynchronous courses, where the teacher provides materials and assignments that students can access and complete at their own pace. Some online teaching models also include elements of self-directed learning, allowing students to study course materials and assignments according to their schedule. Online teaching has become increasingly popular in recent years due to technological advancements and internet accessibility. It enables educators to reach a wider audience and allows students to learn flexibly at their own pace, anywhere with an internet connection. However, it also presents some challenges, such as the need for self-motivation and the ability to work independently for students and potential technical problems or communication difficulties during class sessions (Arasaratnam-Smith & Northcote, 2017).

In universities, each teacher and student are prepared to switch teaching modes at any time to keep students on schedule. However, there are always limitations and difficulties in learning music courses in such a modality (Teymori & Fardin, 2020). Nonetheless, the music faculty is slowly adapting

and looking for better ways to conduct online courses (Hietanen, Ruokonen, Ruismäki, & Enbuska, 2016). For example, some teachers in China use apps such as "Tianyi Cloud Meeting Software" and "Superstar Learning Pass" for their teaching activities. They share learning materials with students through the screen-sharing feature and use the "Electronic Whiteboard" function for explanations as well as the "Camera" and "Voice" functions for video guidance for courses that require singing or playing an instrument. Lastly, they can also use the interactive features on “Superstar Learning Pass” for activities such as sign-in, quizzes, group selection, voting, discussion, and point-scoring, and then assign online homework or organize online exams for students.

Across the music education field, teaching online requires teachers to spend more time learning and adapting skills and greater flexibility and teaching design skills. Particularly in instrumental and vocal music, only some teachers would stop learning offline in person and not put all their efforts into online learning. This has to do with the limitations of online teaching equipment and the special features of music performance teaching (Blackburn & Hewitt, 2020).

For example, teaching singing and performance is different from teaching cultural knowledge. Both network speed and recording equipment have more rigorous requirements. Time delays, unsynchronized music images, sound distortion, blurred pixels, etc., caused by the equipment can seriously negatively affect teaching. In addition, voice teachers must observe students' breath, posture, mouth shape, and detailed finger movements from several angles. This requires the student's camera equipment to be at least multi-angle or movable (Biasutti, 2022). Furthermore, the most troublesome part is that teachers cannot correct students' irregular movements, and drawing a mark on the student's score is very difficult.

In the context of the post-COVID era, the model of education in the future may organically combine online and offline courses to promote each other. Using new media teaching resources, we still need to upgrade continuously. In addition to upgrading our professionalism, using diversified teaching methods and being checked by new media resources are also topics that we need to be lifelong learners (Váradi, 2022). Based on the above context, this paper focuses on the educational transformation of college music majors in the post-COVID era by analyzing the experience of online classes during the pandemic and its reflections and opportunities brought to the post-COVID era.

To ensure effective online learning for students, besides needing teachers to improve their teaching methods continually, it is also important to pay attention to students' learning satisfaction to promptly adjust teaching methods and help students better adapt to each online course (Han & Sa, 2021). Online learning satisfaction is used to measure students' online learning experience. It consists of eight components, including the effectiveness and timeliness of feedback, use of discussion board in class, interaction between teacher and students, online experience, teacher's style, atmosphere of learning community, and computer-mediated communication. Student satisfaction is an important indicator of overall student performance and achievement. Many tools are available online to measure student satisfaction, the most used method being a survey questionnaire. Various survey methods have been developed in recent years, such as course experience questionnaires, national student surveys, and student educational quality assessments, all used to measure student satisfaction.

Students in online courses typically face more learning difficulties, including digital literacy, conceptual understanding, technical problems, and usability. If not addressed promptly, these difficulties can reduce learning efficiency and motivation and impact their satisfaction. Schools and teachers also provide student support, typically including teaching or technical support. Mentors and other students can participate together to help students resolve problems in the course. This support, especially when students face technical difficulties, is critical in overcoming difficulties and

affecting students' overall satisfaction. The ability of students to apply knowledge and achieve expected learning outcomes also impacts their satisfaction and quality of learning experience.

Most music colleges in the country have launched an online teaching method to ensure students can complete their semester schedule during the pandemic. So far, most music colleges' online teaching orders are normal. Most teachers of theory classes use WeChat, Nail, Tencent Conference, Practice Together APP, and other live class software for teaching. In the process of live broadcast, they make novel and perfect courseware. They interact with students in the classroom and make them absorb the learning content quickly through screen sharing. After the class, students can play back the video through the software and comprehensively review and summarize what they learned that day. Students can consolidate and digest what they have learned that day through video replay.

The curriculum of music majors includes instrumental performance and voice performance. Currently, the instrumental music course has piano performance as the main course. Most piano lessons are in two forms. One is video recording; students record their performance at home and send it to the teacher via "WeChat" or "QQ" software, and then the teacher will check it and give the students feedback on the corrections. The second type is the direct video dialogue. Students play in real time on the video software, and the teacher provides live instruction on the performance. Teachers upload lesson plans, PowerPoint, audio, and video resources in voice lessons on Learning Connect or other software before the lesson. After the materials are prepared, the teacher demonstrates how to sing and then lets the students imitate, learn, and demonstrate. This is a continuous process of making students understand.

Due to limitations in network technology and the immaturity of ICT technology, there are many inconvenient aspects to online courses (Kaware & Sain, 2015). In terms of details, for example, the high-tech requirement for piano courses is greatly affected due to the unrealistic and smoothness of sound transmission in software. Especially during live performances, sometimes the actual performance effect cannot be heard, leading to the teacher demonstrating and the student not being able to hear the teacher's detailed processing. The teacher cannot hear the student's performance clearly when the student imitates, the efficiency of the class is low, and neither the teacher nor the student has a sense of accomplishment. There is also a lack of coordination between sound and movement and serious sound distortion. It is difficult to control the subtle requirements of tone changes and dynamic control. For the unique technical aspects of piano teaching (Deja, Mayer, Čopič Pucihar, & Kljun, 2022)Ideal requirements cannot be met online, such as breathing, relaxation, hierarchy, tone, emotions, etc.. Teachers and students cannot face each other in vocal line classes, which leads to the teacher not being able to grasp the student's learning situation and psychological state quickly and cannot directly communicate and interact emotionally. The teacher finds it difficult to observe the student's breath, posture, mouth shape, and finger detail movements from the video. Therefore, music classes are difficult to meet ideal requirements online (Hietanen et al., 2016). Since teachers and students cannot face each other in class and there is no well-designed management and assessment mode, students tend to skip classes or drop out due to poor performance in online courses. These limitations greatly affect the students' experience in online courses. This ultimately affects student satisfaction and leads to declining grades or boredom.

This paper answers the following questions: a) What is the satisfaction level of the respondents with the online teaching method? b) Is there a significant difference in the respondents' satisfaction level when grouped according to the online teaching method? c) What are the hindering factors of online learning?

LITERATURE REVIEW

The emergence of technology and the internet has significantly impacted music education. Online and

technology-based learning environments have emerged as viable alternatives to traditional face-to-face teaching. With an increasing number of music students pursuing online learning, exploring the factors influencing student satisfaction in these environments is imperative. By gaining insights into student satisfaction, effective online/technology-based learning programs can be developed, ultimately improving the quality of music education.

Music Students' Satisfaction During Online/Technical Learning Period

In online education, students' perception of courses differs from traditional offline courses, and an incomplete understanding can hurt learning outcomes and satisfaction. Various factors affect students' satisfaction with online learning, including learning outcomes, instructional design, and learner characteristics. In addition, it is crucial to analyze and manage the effects of administrators, lecturers, and teachers. Online learning may not be suitable for every student, and it is crucial to identify the conditions that contribute to positive learning outcomes and to understand students' personality traits to design high-quality online courses that meet their needs. Appropriate teaching methods and course structures can promote students' performance and satisfaction.

However, compared to traditional learning environments, the attrition rate of online courses remains high, ranging from 10% to approximately 50%. Students' perception of online courses differs from that of traditional courses, and negative or inaccurate perceptions can lead to unfavorable learning outcomes, including decreased motivation and persistence. Online learning can also evoke negative emotions, such as frustration, especially when courses are not appropriately designed or students lack the necessary skills for online learning (Kauffman, 2015).

Researchers investigated the current situation of online music teaching in six universities, including Xinjiang Arts College, Xinjiang Normal University, Shihezi University, Kashgar University, Xinjiang Agricultural University Science and Technology College, and Changji College, from September 2020 to February 2021(Li, 2021). The survey findings indicated that 170 students (62% of the respondents) were consistently interested in online teaching. In comparison, 93 students (34% of the respondents) were frequently interested, and 16 students (6% of the respondents) were occasionally interested. Regarding concentration during online learning, 47 music majors (17% of the respondents) reported that they could always concentrate, 70 music majors (25% of the respondents) could often concentrate, and 162 music majors (59% of the respondents) could occasionally concentrate.

Another survey (Wen, 2022) on the status of online vocal courses for students at Zhejiang Normal University revealed that 35.42% of the students considered the vocal online course to be like offline teaching, 48.75% thought it was inferior to offline teaching, and 15.83% thought it was superior to offline teaching. Furthermore, 64.17% of the students reported encountering problems such as distorted sound, delayed sound, and inability to hear high notes during vocal online courses. In comparison, 15% of the students found the network platform unstable, with frequent black screens.

Meanwhile, Marcial (2018b) investigated the acceptance of the Portable Learning Management System (PLMS) by 104 students from three classes at Silliman University. The survey revealed that the respondents perceived the PLMS as beneficial in helping them complete their learning tasks for the class. Furthermore, the PLMS was noted to provide valuable resources, supplementary materials, and activities to support classroom learning.

A research group comprising 33 students was organized by Jukka and Atripi (Enbuska et al., 2018) from the University of Lapland and the University of Helsinki, respectively. One-third of the group had prior experience in studying piano, while two-thirds lacked any experience in playing the piano. The 33 students were divided into 13 small groups, each with 2-4 students. During the academic year, these groups underwent 12 group lessons. The first data

set was collected from an extensive group lesson where all 33 students answered a survey about their prior experience learning music online. The second data set was obtained from the small group lessons and seven larger group lessons formed by merging other small groups. The third data set was derived from student assignments, where students were required to watch piano teaching videos on Rockway and write an article based on the video they watched. The data analysis revealed that 15% of the students moderately explored e-learning environments, and 24% of the students occasionally used e-learning platforms. In other words, 60% of the students never used any e-learning environment. The piano lessons were conducted simultaneously with the students' learning on Rockway. However, students encountered challenges in the Rockway course; students without a music background struggled to understand the terms mentioned in the videos, while experienced piano players found the video redundant as they were already familiar with the concepts.

Another study surveyed 220 music majors from eight universities in Romania to determine their satisfaction with using e-learning platforms and online education. Descriptive statistics from the survey showed that students' overall satisfaction was moderate (27.3%), with 34% being satisfied, 15% being very satisfied, and only 33.7% expressing lower satisfaction (Rucsanda et al., 2021).

Factors Promoting and Hindering Online/Technology Learning

ICT has become prevalent in education and transformed how teachers teach, as well as how students learn. However, software technology issues can significantly affect teaching, and implementing these innovations is difficult. Teachers are exploring new strategies to address the challenges of this new era. Several surveys have identified portability, usability, creativity, independent learning, and administrative support as factors that promote the integration of classroom information and communication technology. Conversely, time constraints, lack of technology and administrative support, and technological rigidity hinder technology-assisted teaching. Although obstacles exist in integrating learning technology, teachers and students can make positive adjustments in the classroom. Teaching innovation is not only the responsibility of teachers but also the responsibility of every staff member who benefits from it in the school.

Factors that Promote Online/Technology Learning

Professor Marcial from the Computer Research Institute at Silliman University, Philippines, conducted a study to identify factors that promote technology learning（Marcial，2018a). The survey revealed that portability enables teachers to access materials and communicate with students from any location, facilitating mobile learning. Usability, characterized by effectiveness, efficiency, and satisfaction, promotes adopting technology and innovative teaching. Administrative support and teacher commitment are crucial for effectively integrating and implementing technology, enhancing creativity and independent learning.

According to some teachers, online learning for music students has the potential to broaden teaching methods and forms, enabling a more flexible and casual approach to music education. This method fosters independent learning and enhances students' enthusiasm and initiative towards learning, as they can access excellent educational resources worldwide, thus removing geographical barriers. Online music education not only reduces learning expenses but also enhances learning efficiency.

Zheng Yimeng (2021) suggested that the shift from offline to online music education would rapidly expand. Traditional music education is characterized by rigid teaching, where the teacher dominates the classroom, and students passively listen and imitate. With the support of network technology and various music editing software, classroom teaching is becoming more diverse. This approach enables students to participate more actively in the classroom, becoming the focus of the class. While traditional teaching involves face-to-

face communication between teachers and students, making it more realistic and direct, online teaching is supported by mobile internet thinking, where video language focuses on human physical and mental development. Although online teaching is not face-to-face, it helps create a relaxed emotional environment for students, allowing them to comprehend music education concepts under video teachers' guidance easily.

Wang Sijia (2021) argued that online music teaching could optimize resource allocation and generally meet the learning needs of students, which was validated by a study utilizing Northeast Normal University students as respondents, concluding that online music education is an effective way to improve the quality of music education in schools, meeting contemporary students' music learning needs (Zhen & Ge, 2021).

Factors that Hinder Online/Technology Learning

Marcial (2018a) identified the following obstacles to technology learning: time constraints are the biggest barrier to innovative teaching, with long hours and professional commitments leaving teachers little time to learn and integrate technology effectively. Additionally, the lack of technology and administrative support impedes the adoption of technology-enhanced teaching, and poor flexibility in IT systems further hinders innovative teaching methods.

According to Zhang (2020), a Music School of Shanghai Normal University teacher, high-quality hardware equipment is essential for online music education. Unlike music theory teaching, performance-based music education, such as instrumental and vocal performance, places high demands on recording equipment and internet speed. Facility constraints can cause a series of issues, including unsynchronized audio and video, time delays, pixel blurring, and sound distortion, all of which can significantly reduce the quality of teaching.

Based on a study of domestic online music education products and an investigation of online music education platforms, Ding (2020) concluded that irregular teaching, insufficient professional quality of teachers, and confusion in teaching professional knowledge are among the issues in current online music education platforms. In addition, Zheng Yimeng (2021) argued that online music education lacks a learning atmosphere. In online music teaching, whether one-way learning of network music courses or one-on-one online real-time video teaching with teachers and students, the latter mainly learn themselves at home. Although students can choose their learning venue and time, they lack opportunities for face-to-face communication with teachers and classmates. The weak interaction between teachers and students, the lack of emotional communication, and the on-site experience make the individual learning experience poor. Zheng emphasized that relying solely on online teaching is not conducive to long-term music learning, as learning music shapes the ear and cultivates music aesthetic discrimination and expression, which is crucial. However, online music education is inadequate for shaping and processing sound quality and timbre. Therefore, online music teaching and learning is not conducive to music learning.

Another study (Jiayue & Xin, 2022) highlighted that apart from the challenges of hardware and the learning environment, the teacher's perspective is another factor hindering the growth of online music education. According to them, in higher education music teaching, some instructors view online teaching as merely shifting the physical classroom to the virtual space, using traditional teaching approaches without personalizing instruction based on individual students' differences. This approach gradually diminishes students' interest in learning music, making it challenging to achieve desirable teaching outcomes.

METHODS

This study adopted a descriptive correlational design. This research was conducted at the School of Music, Huanggang Normal University, in Hubei Province, China. The School of Music at Huanggang Normal University was founded in 1972 as part of the Department of Literature and Art. In 1993, the

Music Department was established and offered a major in Music Education, the first among similar colleges in Hubei Province. In 1999, with the school's promotion to an undergraduate institution, the Music Department entered a fast development track, with the level and scale of education being raised and the discipline construction developing steadily. The major in Musicology was opened in 2000, followed by the major in Music Performance in 2003. In March 2004, the Music Department and the Fine Arts Department merged to form the School of Arts, and in March 2009, the School of Music became independent, providing a stable platform for its development. The School of Music has 50 staff members, including 43 full-time teachers, three professors, over ten part-time professors, seven associate professors, and 26 lecturers. Thirty teachers hold master's degrees or higher. The current music program consists of various courses, including vocal music, piano, instrumental music, dance, MIDI production, performance, basic music theory, sight-reading and ear training, introduction to Chinese and Western music history and appreciation, and Huangmei opera performance.

The study's respondents were chosen from first-year, sophomore, and junior students who enrolled during the second semester of the academic year 2021-2022, totaling 1,100 students. Since the fourth-grade students were in the work internship stage and not attending courses in the university during the mentioned semester, they were not included in the survey. The sample size was determined using Sloven's formula. Based on the algorithm, the study needed to survey 298 individuals.

An adopted questionnaire was utilized of the Online Learning Satisfaction (OLS) tool developed by Antoinette (Davis, 2014) to investigate the satisfaction level of online learning during the pandemic. OLS consists of several components, including the effectiveness and timeliness of feedback, teacher-student dialogue, perception of the online experience, teacher characteristics, and computer-mediated communication. Effective and timely feedback from teachers and peers can assist students in monitoring their progress and adjusting their learning strategies, ultimately enhancing their satisfaction and performance. Interactions between students and between students and teachers can foster a supportive and interactive online learning environment, thus increasing students' satisfaction. Furthermore, students' perceptions of the online experience and teacher characteristics are vital in determining their engagement and motivation in online learning environments. In addition, a sense of learning community and effective utilization of computer-mediated communication can create a social presence, promoting interaction and collaboration among students, which is crucial for creating a positive online learning experience. Likewise, part of the questionnaire is the section that gathered the barriers to online learning, primarily related to network and computer usage issues. Test-retest testing among similarly situated 30 respondents was conducted at an interval of one week. Unreliable items in the questionnaire were removed. Some items were also not accepted.

The survey was conducted online using survey software. Before the survey, the respondents were sent an email informing them of the purpose of the data use. After setting up the survey questions in the SurveyMonkey software, the link was sent to the teaching and research group leader, who then forwarded it to each homeroom teacher. Finally, the homeroom teacher distributed the link to students who completed the questionnaire on mobile phones. Further, this study adhered to the ethical standards of the Silliman University Research Ethics Committee.

RESULTS AND DISCUSSION

A. Satisfaction Level with Online Teaching Methods

Table 1 presents the average satisfaction scores of respondents regarding various subjects (Piano course, Knowledge of music theory, Vocal course) in online learning. The scores help assess the extent to which students enjoy online music courses.

As shown in the table, the overall average score for the surveyed population is ($\bar{X}$ =3.38； SD=1.1),

indicating a 'Slightly Agree' satisfaction level. Specifically for the piano course, the average score for the statement 'I think the proportion of online teaching methods for piano courses is appropriate' is 'Slightly Agree' ($\bar{x}$ =3.2； SD=1.14) (Jiang et al., 2021). For the statement 'I am satisfied with the above online learning methods for piano courses,' the average score is also 'Slightly Agree' ($\bar{x}$ =3.26 ； SD=1.13). The overall average score for online piano courses is 'Slightly Agree' ($\bar{x}$ =3.23 ； SD=1.14). This indicates room for improvement in certain aspects of online piano courses. It could be due to issues with the internet connection, platform usability, or teaching methods employed by the instructors. These findings suggest the need for adjustments and improvements in these areas to enhance students' online piano learning experience.

In the case of the Knowledge of Music Theory course, the average score for the statement 'For the proportion of music theory courses taught online, I think it is appropriate' is 'Agree' ($\bar{x}$ =3.56 ； SD=1.02). Regarding the statement 'For the music theory course, I am satisfied with the online learning approach described above,' the survey results show an 'Agree' response ($\bar{x}$ =3.58 ； SD=0.98).

The overall satisfaction for the online knowledge of music theory course is 'Agree' ($\bar{x}$ =3.57； SD=1.0). This indicates that respondents generally appreciate online learning for the knowledge of music theory courses. Perhaps, due to its theoretical nature, the frequency of teacher-student communication during classes is minimal. Therefore, the impact of network speed or application on this course is relatively small. For the Vocal course, the average score for the statement 'I think the proportion of online teaching methods for the vocal course is appropriate.' is 'Slightly Agree' ($\bar{x}$ =3.34； SD=1.20). Regarding the statement, 'I am satisfied with the above learning methods for the vocal course.,' student satisfaction is 'Slightly Agree' ($\bar{x}$ =3.35 ； SD= 1.20). The overall satisfaction for the Vocal course is 'Slightly Agree' ($\bar{x}$ =3.35； SD= 1.20).

A 'Slightly Agree' satisfaction level suggests room for improvement in certain aspects of the online Vocal course, similar to the Piano course. It could be related to issues with the internet connection, platform usability, or teaching methods employed. These findings highlight the need for adjustments and improvements in these areas to enhance the online learning experience for Vocal course students. (Biasutti et al., 2022)

Table 1. ***Respondents' Satisfaction Level with Online Teaching Methods***

1.1 Piano course	**Weighted Mean**	**Std. Deviation**	**Verbal Description**
I think the proportion of online teaching methods for piano courses is appropriate.	3.20	1.14	Slightly Agree
I am satisfied with the above online learning methods for piano courses.	3.26	1.13	Slightly Agree
Aggregate	***3.23***	***1.13***	***Slightly Agree***
1.2 Knowledge of music theory	**Weighted Mean**	**Std. Deviation**	**Verbal Description**
For the proportion of music theory courses taught online, I think it is appropriate.	3.56	1.02	Agree
For the music theory course, I am satisfied with the online learning approach described above	3.58	0.98	Agree
Aggregate	***3.57***	***1.00***	***Agree***
1.3 Vocal course	**Weighted Mean**	**Std. Deviation**	**Verbal Description**
I think the proportion of online teaching methods for a vocal course is appropriate.	3.34	1.19	Slightly Agree
I am satisfied with the above online learning methods for a vocal course.	3.35	1.19	Slightly Agree
Aggregate	***3.34***	***1.19***	***Slightly Agree***
Grand Means	**3.38**	**1.11**	**Slightly Agree**

Table 2 displays the average satisfaction scores of respondents regarding online learning. The criteria assessed include the effectiveness of feedback ($\bar{X}$ =3.50； SD=0.96), timeliness of feedback （ $\bar{X}$ =3.58； SD=0.96), conversation between teacher and student ($\bar{X}$ =3.52； SD=0.95), teacher's traits ($\bar{X}$ =3.46； SD=0.98), sense of learning community ($\bar{X}$ =3.51； SD=0.97), perceptions of the online experience ($\bar{X}$ =3.44； SD=0.99), and computer-mediated communication ($\bar{X}$ =3.43； SD=0.99). The overall average score for online learning satisfaction is ($\bar{X}$ =3.49； SD=0.97) (Almusharraf & Khahro, 2020).

In this study, respondents demonstrated a generally positive response regarding their overall satisfaction with online learning. Among these seven criteria, timeliness of feedback and conversation between teacher and student

exhibited higher satisfaction levels. Timely feedback from teachers regarding assignments allows students to promptly address any shortcomings, leading to a better understanding of the course material and increased confidence in participating in online classes (Shonfeld, 2021). Clear communication and effective teacher demonstration during online sessions facilitate smoother progress, fostering better comprehension and completion of assigned tasks. It is important to note that these two aspects are interconnected. On the other hand, perceptions of the online experience and computer-mediated communication received lower satisfaction scores. Students may perceive limitations in presenting themselves effectively and feeling at ease on online learning platforms. Such a lack of confidence may contribute to a less enjoyable experience for students (Gopal et al., 2021).

Table 2. Respondents' Satisfaction with Online Teaching Methods Based on Teacher Feedback, Conversation and Trait, and Perception of Online Community, Experience, and Communication

2.1 The effectiveness of the feedback	Weighted Mean	Std. Deviation	Verbal Description
I am satisfied with my music online learning experience. Because I received effective feedback that helped clarify any questions I had about the course, such as assignments and that feedback was provided to me on an ongoing basis.	3.50	0.98	Agree
Because I have received effective feedback regarding my classroom assignments, which includes specific instructions on correcting any incorrect issues in the assignments.	3.49	0.99	Agree
Because I received effective feedback on my classroom assignments, which provided specific guidance for correcting any inaccuracies, through clear and thorough explanations of my specific questions regarding the course.	3.52	0.96	Agree
Aggregate	***3.50***	***0.96***	***Agree***

2.2 Timeliness of feedback	Weighted Mean	Std. Deviation	Verbal Description
This is attributed to the timely and consistent feedback I received on my class assignments, which enabled me to effectively complete my assignments.	3.59	0.95	Agree
Because I am able to receive feedback on my classroom assignments in a timely manner, which helps me to stay focused on my learning.	3.56	0.97	Agree
Aggregate	***3.58***	***0.96***	***Agree***

2.3 Conversation between teacher and student	Weighted Mean	Std. Deviation	Verbal Description
In singing and playing courses, I can clearly hear the teacher's demonstration.	3.52	0.98	Agree
I am satisfied with my online learning experience because I can understand and complete the learning tasks assigned by the teacher well.	3.52	0.96	Agree
Aggregate	***3.52***	***0.95***	***Agree***

2.4 teacher's traits	Weighted Mean	Std. Deviation	Verbal Description
Because the teacher provided me with the same level of help with my learning problems online as offline.	3.50	1.00	Agree
Because of the advancement of online technology, the teacher's online teaching is more creative than offline teaching.	3.42	1.03	Agree
Aggregate	***3.46***	***0.98***	***Agree***

2.5 The feeling of a learning community	Weighted Mean	Std. Deviation	Verbal Description
Because the online learning environment is like a community where I can communicate with other classmates.	3.52	0.99	Agree
I can work with my groupmates to complete high-quality assignments.	3.50	0.98	Agree
Because this environment can promote the relationship among classmates, and we can share and care for each other in a timely manner.	3.52	0.98	Agree
Aggregate	***3.51***	***0.97***	***Agree***

2.6 Perceptions of the online experience	Weighted Mean	Std. Deviation	Verbal Description
Because the online learning platform I use allows for smoother demonstration of my singing/playing skills.	3.42	1.01	Agree
Because the convenience of the online learning platform makes me feel happy.	3.46	1.02	Agree
Aggregate	***3.44***	***0.99***	***Agree***

2.7 Computer-mediated communication	Weighted Mean	Std. Deviation	Verbal Description
Because in the online environment, I feel I can become more authentic.	3.43	1.01	Agree
Because the mediation of computer media in communication makes it easier for me to establish good relationships with other classmates.	3.43	1.02	Agree
Because through the computer, I can better feel the presence of the teacher and classmates.	3.43	1.00	Agree
Aggregate	***3.43***	***0.99***	***Agree***
Grand Means	**3.49**	**0.97**	**Agree**

B. Difference in Respondents' Level of Satisfaction with Online Teaching when Grouped According to Online Teaching Methods

The data results from Table 3 indicate no significant correlation ($p > 0.05$) between using three different teaching modes in piano courses and student satisfaction with online teaching.

Similarly, for the "Knowledge of Music Theory" course, there is no significant difference in student satisfaction among the three different online teaching modes.(Rucsanda et al., 2021; Yang & Yang, 2021), and the results show no significant correlation ($p > 0.05$). In the case of the vocal course, there is no significant correlation ($p > 0.05$) between student satisfaction and the use of the three online teaching modes. However, when employing the "face-to-face video teaching" method, the piano course received the highest score (158.5), suggesting that this teaching mode is more suitable for piano lessons. On the other hand, the "Self-paced video learning" method appears to be more suitable for the vocal course, as it received a score of 188.6, indicating a significant difference from other courses. Nevertheless, students perceive that different teaching methods do not influence their satisfaction levels.

Table 3. ***Difference in Respondents' Level of Satisfaction with Online Teaching Grouped According to Online Teaching Methods***

3.1 Piano Course			**H**	**P**	**Remarks**
Means Ranks for					
face-to-face video	Online	Self-paced video			Not significant
158.5	145	135.1	3.01	0.22	
3.2 Knowledge of music theory					
Means Ranks for					
face-to-face video	Online	Self-paced video			Not significant
154.1	146.5	151.6	0.51	0.77	
3.3 Vocal course					
Means Ranks for					
face-to-face vide	Online	Self-paced video			Not significant
142.2	154.5	188.6	5.72	0.06	

C. Factors Hindering Online Learning

The data in Table 4 pertains to the survey on hindering factors for online learning. Regarding the survey on internet speed, the results indicate 'Fast' (2.45， 0.94). The results of satisfaction with internet service providers show 'Satisfied' (2.29， 0.82). While using the internet, students also face certain hindering factors. As shown in the table, the most prevalent factors are Internet service interruption (28.52%), slow Internet speed (47.65%), Customer service not resolving issues promptly (9.4%), Excessive service fees (4.03%), and Others (10.4%). Most respondents selected 'Slow internet speed,' indicating that internet speed issues can cause varying degrees of inconvenience. Conversely, 'Excessive service fees' received the least attention, suggesting that it is not a key hindrance to learning. Respondents encountered various other issues when using the platform, as revealed in Table 4.

The highest proportions were found for 'Problems with Internet connection' and 'Multiple issues.' On the other hand, respondents did not perceive significant impacts from issues such as 'The amount of multimedia is poor,' 'Inconsistency and difficult structure of the course,' 'Assessments were irrelevant and not appropriate,' and 'Engaging and connecting with classmates was difficult.'

Table 4. ***Factors Hindering Online Learning***

Hindering Factors

How do you rate your internet speed during the second semester of SY 2021-2022?	Q1		
	WX	S	VD
	2.45	0.94	Fast

	Q2		
	WX	S	VD
Do you feel satisfied with the quality of customer service provided by your Internet service provider during the second semester of SY 2021-2022?	2.29	0.82	Satisfied
Have you experienced the following during the second semester of SY 2021-2022?	f	%	
Internet service interruption	85	28.52	
Slow internet speed	142	47.65	
Customer service not resolving issues promptly	28	9.40	
Excessive service fees	12	4.03	
Other	31	10.40	
Total	298	100.00	Total

What problems have you encountered when using the e-learning platform during the second semester of SY 2021-2022?	**f**	**%**
Problems with Internet connection	56	18.79
Unfamiliar with the operation and features of the platform	21	7.05
Course content is difficult to understand.	16	5.37
I got no technical support from my class.	5	1.68
The assessments were irrelevant and not appropriate.	4	1.34
Engaging and connecting with classmates was difficult.	3	1.01
Inconsistency and difficult structure of the course	1	0.34
The overall design of the e-learning platform is poor.	29	9.73
The amount of multimedia is poor?	0	0.00
J. Multiple	163	54.70
Total	**298**	**100.00**

CONCLUSION AND RECOMMENDATIONS

Conclusion

This study reveals that online music courses frequently fall short of providing students with a highly satisfactory learning experience. Despite the use of varied teaching methods, improvements in student academic performance remain limited. These findings emphasize the urgent need to enhance the design and delivery of online music education to better support student satisfaction and learning outcomes.

Integrating interactive and personalized elements, along with fostering effective communication channels, is crucial to enriching the online learning experience. Strengthening these aspects can create a more engaging, responsive, and fulfilling educational environment for music students.

Although students demonstrate strong internet proficiency and familiarity with online learning platforms—indicating their preparedness for technology-driven education—the current delivery methods still present notable challenges. Their positive attitude toward online education suggests an opportunity to align technological innovations more closely with the specific needs of music instruction.

Furthermore, the findings highlight the importance of investing in advanced online learning tools tailored for practical courses, such as piano and

vocal instruction. Improving the delivery of these courses can significantly enhance student engagement, satisfaction, and academic performance. The adoption of an "online conference-style" teaching approach has also shown promise, leading to superior academic outcomes. This interactive method encourages active participation, deepens student understanding, and fosters exposure to diverse perspectives through collaborative learning.

Importantly, the study indicates that student satisfaction is influenced not only by diversifying teaching formats but also by the overall quality of the learning platform and environment. These elements are critical in shaping meaningful learning experiences.

Finally, slow internet connectivity remains a significant barrier to student engagement, particularly in high-bandwidth practical courses. Addressing this issue through improved internet infrastructure and optimizing learning platforms for real-time interaction is essential for ensuring a seamless and effective online music education experience.

Recommendations

To sustain and enhance the technological profile and student satisfaction in online music education, this study proposes a set of recommendations across five key strategic areas. First, institutions should ensure that both current and future students are equipped with up-to-date technological tools and platforms. This includes reliable access to high-speed internet and devices that are compatible with the demands of music learning, such as those supporting high-quality audio and video streaming. Second, student satisfaction with online teaching must be actively improved through responsive instructional design, the use of interactive and learner-centered pedagogies, and the integration of regular feedback mechanisms that inform course enhancements.

Third, faculty development is critical to the success of online music instruction. Institutions should invest in ongoing professional development programs that focus on digital pedagogy, innovative teaching methods, and the effective integration of interactive media and technologies specific to music education. Fourth, schools must strengthen institutional enablers of online learning, such as administrative support, efficient technological infrastructure, and user-friendly learning platforms, which collectively foster a more effective and supportive learning environment.

Fifth, barriers to effective online learning—particularly unstable connectivity, limited interactivity in practical music instruction, and the lack of real-time feedback—must be systematically addressed. Institutions are encouraged to adopt comprehensive E-Teaching Guidelines that outline standards for teacher training, curriculum development, student support, instructional quality, data protection, platform optimization, and digital inclusion. These guidelines must be flexible enough to accommodate the diverse contexts and capabilities of different regions and institutions (Dumford & Miller, 2018).

In addition to these practical recommendations, further research is necessary to address persistent gaps in online music education. Future studies should examine the effectiveness of emerging music performance technologies in enhancing instruction and collaboration, as well as the applicability and impact of online music education in cross-cultural and multilingual environments. Moreover, the design and evaluation of interactive learning tools tailored to music students, along with the development of robust performance assessment methods, such as video-based evaluations and real-time feedback systems, are essential areas for further investigation. These research directions will contribute to building a more inclusive, engaging, and future-ready model of music education in digital environments.

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