Teaching Music in the Times of the Pandemic: Pedagogical Pathways for Online Learning

Kris Ho, United International College, China
Victor J. Rodriguez, Beijing Institute of Technology, China

The Asian Conference on Education 2020
Official Conference Proceedings

Abstract
The online learning environment demanded by pandemic conditions in China has offered opportunities for teachers to engage internet-savvy students, but also presented serious obstacles to unmediated face-to-face teaching. The possibilities for student collective collaboration in real time, the difficulties of teachers to connect with the sheer immediacy of music performance and its physical nuances, and the perceived loss of sound fidelity lost through Internet connections, have plagued teachers in the mainland. Teachers have had to adapt to a new online environment that has moved the classroom to the student's bedroom through the use of laptops and mobile devices. In this paper, we analyze these trends and others through an experiential study and analysis of the teaching of strings, percussion and piano in a mainland university music programme. We argue that performance teaching depends for its success on intimacy and proximity, its physical conditions, as well as emotional and personal closeness, its more psychological dimensions. Online teaching seems to represent their very opposites. While we find that teachers have struggled to correct student performance, foster concentration, demonstrate appropriate methods to play instruments, and guide ensemble performances, the avenues for correcting these problems rely on the establishment of classroom collaboration much more than just technical adjustments. In this respect, Carol Johnson has argued for a "transformation of pedagogical practice" that establishes cognitive, social and teaching presence. We find that what is needed is not a total transformation of pedagogy, but the means to translate the traditional classroom into the new online classroom.

Keywords: Online Teaching, Online Learning, Music Performance, Pedagogy, China

Introduction

We have titled our project *Teaching Music in the Times of the Pandemic: Pedagogical Pathways for Online Learning*. It focuses on how the online learning environment demanded by pandemic conditions in China in 2020 has offered opportunities for teachers to engage internet-savvy students, but also presented serious obstacles to unmediated face-to-face teaching particularly in music performance. These times have been specially challenging for music teachers. Student collective collaboration in real time has been difficult, a loss of connection with the sheer immediacy of music performance and its physical nuances has affected teachers, and a perceived loss of sound fidelity lost through Internet connections have plagued teachers in the mainland. In these circumstances, teachers have had to adapt to a new online environment, moving the classroom to the student's bedroom, and mediating interaction through laptops and mobile devices.

In our paper, we analyze these trends and others through an experiential study and analysis of the teaching of strings, percussion and piano performance in a mainland university music programme. We have gathered data from over 10 courses in applied instrumental lessons, chamber and orchestral performance, choir as well as history of music, at a college in Zhuhai, Guangdong, China for a period of one semester in the year 2020. Approximately over 300 students were involved in this study. We performed a mostly qualitative study of music pedagogy online through interviews with students and teachers, ethnographic immersion in music classes, and an analysis of assessment and evaluation criteria, leveraging this information with our evaluation of student progress in class. Our guiding questions were: how have faculty designed and implemented specific strategies for online teaching? What obstacles did they encounter in the online classroom? What strategies, if any, resulted in positive learning outcomes? How do these successful strategies relate to the scholarship on online music pedagogy?

We found that while performance teaching depends for its success on intimacy and proximity—its physical conditions—as well as emotional and personal closeness, its psychological dimensions, online teaching seems to represent the very opposite. Thus teachers struggled to correct student performance, as well as foster concentration, demonstrate appropriate methods to play instruments, and guide ensemble performances. We find that the avenues for correcting these problems rely on the establishment of classroom collaboration much more than just technical adjustments. We argue that what is needed is not a total transformation of pedagogy, but the means to translate the traditional classroom into the new online classroom.

Literature review & theory

The salience of physicality in the teaching of music has led scholars into an investigation of how such presence might become a factor in online teaching. Carol Johnson (2017) identifies how a "transformation of pedagogical practice" in the move to online pedagogy requires cognitive, social and teaching presence. "There is a pedagogical shift," she argues, "that happens to faculty members when they transition from a traditional face-to-face model of music teaching to the fully online environment" (Johnson, 2017). Other scholars have argued that focusing on a pedagogical approach provides a crucial nexus to a successful transition to the online

environment and its asynchronous and synchronous possibilities as well as design strategies and student motivation (Palloff and Pratt, 2011; Garrison, 2011; Picciano, 2002; Bowman 2014). Online course design requires choices distinct to those of the "traditional music classroom" (Johnson, 2017).

Research shows that presence is crucial in online teaching in China, but that "computer mediated communication (CMC) is unable to deliver social context cues crucial to Chinese students' communicative practices." Scholars have noted that "when integrating CMC into an online learning environment, it is [thus] necessary to consider the student's local culture, language skills, keyboarding skills, format of CMC, face saving, computer literacy, use of paralanguage and emoticons, responsiveness of asynchronous communication, use of stylistic communication styles, and feelings of private/public" in order to respond to how students' perception of CMC is affected by "social presence, social context, online communication and interactivity" (Tu 2010).

Students' preference for reading rather than online discussion has also been discussed as an important factor affecting learning productivity (Fung 2007) as well as co-location: on-campus and off-campus locations for online learning becomes an important factor in learning (Xie et als. 2010). Research on the online experience in China also show that increases in online learning productivity are tied to intrinsic as well as extrinsic motivation. Enjoyment enhances acceptance of web-based online learning systems and are deeply connected to a participatory model of education that recognizes that objective motivations are only partially linked to a successful pedagogical strategy (Zhang et als. 2008).

This research does not indicate how far we can go in applying these findings to the online teaching of music. Our research seeks to fill in this gap.

Methods: Case study

The case university is here given the pseudonym of "South China University" or "SCU." SCU has been described as an international private university with partners in Hong Kong, the United State and other western nations. SCU's brochures describes its programme in Music Performance as well as a minor in Music as provides music training to students with the goal of producing world-class, global leaders in the music industry. The school possesses world-class facilities, state-of-the-art rehearsal rooms, and highly-engineered performance and rehearsal venues for this purpose. Its faculty has received extensive training in the use of online tools and teaching material, but no workshops on online methods. All music faculty are members of a wider Division of Culture and Creativity. During the semester pertaining to our research, all faculty taught online and shared experiences in informal fora. This was a first-time experience for all of them.

Ethnographic and class immersion data gathering took place in the courses "Songwriting," "Compositional Technique," "Classical Music," "Traditional Music," "Chamber Music," "Music Theory," "Orchestral Studies," "Performance—Choral," "Tonal Counterpoint," and "Keyboard Performance." Over five teaching staff participated in the study, teaching courses with over 500 students in total. We

consider the study to be quite exhaustive for this institution and a good sample of the online music teaching experience in China's higher education system.

Findings

Introduction

Our research took place in the times of the 2020 pandemic during the Winter and Summer semesters of the 2020 academic year. The urgency of the times was reflected in extraordinary increases in online search engines in China as educational organizations including universities, colleges and private studio launched online system to deliver instruction. Most of the faculty interviewed for this research agreed that although existing platforms such as Zoom, Panopto, or WeChat Work potentially served the purposes of online instruction, the demise of face-to-face interaction required urgent responses to new demands. This response is similar to that of faculty overseas (https://www.nationaltribune.com.au/australian-institute-of-music-sees-online-teaching-as-a-new-frontier/).

Faculty identified the erosion of presence as the most pressing issue as online instruction got underway. Although foreign-trained faculty were familiar with successful online music programs (Berklee College of Music, Australian Institute of Music (AIM)), this method of instruction was new for most of their Asian students at SCU. With the learning environment transformed from the normal classroom to the student's bedroom, faculty and students attempted to adapt to a new mode of delivery. For faculty, the major questions pertained to how to improve the student's performance skills? How would intonation, live performance, stage manner be evaluated if online teaching were not to provide a good implementation of ensemble performance? How would students respond to the new environment? If one could not see muscle and body movement, if sound systems were to malfunction, if transmission delays were to interrupt evaluation, if one could not see students' faces, how could music be produced? Thus translating face-to-face interaction to online instruction structured faculty and student's responses to the new challenges.

Technological challenges as challenges In mediating learning interactions

Technological challenges complicated execution in performance-oriented classes (text-based courses in music history, songwriting, and music theory performed better in this regard because it was easier to preserve intimacy and thus presence). Internet instability plagued online teaching leading to student disengagement. As video resolution and sound quality deteriorated, especially in large virtual classrooms, student concentration ebbed. As students removed themselves from the video feed, anonymity increased leading to further loss of concentration. This proved lethal to music online instruction. Students could not properly follow the instructor‘s performance online. Student course evaluations confirmed that the low quality of live broadcasting impeded students from seeing their instructors' precise or unique playing skills on the screen even when instructors would set their camera close to their hands or to the instrument in order to show students as clearly as possible; the sound and the live broadcasting will not synchronize.

As a result, student collaboration in music production suffered and deteriorated. In chamber music performance, ensemble work faltered. Time delays in sound presented a technical challenge to all concerned. Students could be playing together as they counted beats with the metronome, for example, yet sound delivery to each performer's headphones (students employed standard headphones, or studio headphones or mobile phone headphones) would be delayed for a few seconds making such ensemble work impossible. Instrument tuning and intonation problems aggravated under the technical demands of online chamber music performance. In chamber music classes, students in duets, trios and quartets, four-hands piano performance suffered as the range of tuning sounds oscillated between 436 and 439, much lower than the standard tuning of 440 to 442. The frequency of the sound might change slightly either higher or lower.

Students labored counting beats in the *Orchestral Studies* class. Although students counted beats simultaneously, video signal delays muddied performance. In such a large class—approximately 70 students—it became laborious to even play short stretches of three to five bars. Large-size classroom teaching differed qualitatively from small-classroom instruction. Faculty toiled to identify individual errors and correct students' mistakes. Listening to various sections playing together tested student and faculty patience and stamina. In physical classroom instruction, all instruments could properly play together as the instructor ran separate sections and brought them all together by the end. In online instruction, this became an impossibility. Faculty and students agreed that studio work requires specialized technology and equipment support. Students can only rely on the computer and use software to write their music; they cannot really record all instruments as if they have to record drum kit or string quartet performance. Furthermore, it just took more time to conduct one simple exercise such as how to submit the answer or how to conduct team work.

Technology, mediation and loss of presence

Technology became the crucial factor in the loss of presence that ultimately explains the failure to translate the physical classroom into the digital one. In other words, it was not just simply temporary difficulties in adjusting to the use of new technology. There was an overall perception that technological mediation undermined the physical proximity that lend music teaching its effectiveness and joy. Faculty overwhelmingly expressed their displeasure at the impossibility of midi sounds to replicate the fidelity of instrumental music sounds. Although experienced in the use of specialized software and midi, extended periods of online teaching led to frustration at the incapacity of midi to capture the nuances of instrumental play, changes in dynamics and tempo, the idiosyncrasies of performance, and the erosion of sentiment. The use of electronic instruments to facilitate sound transmission accentuated this sense of loss.

Performance classes were deeply affected as collaboration, rather than being enhanced by digital technologies, struggled. Performance students could not play music together live. To correct for these deficiencies, each student recorded separate tracks in order to combine them in one single performance. Yet all faculty agreed that the quality of music production lagged significantly at the same time that the ability to record and submit the best tracks made evaluation difficult for faculty used to live

performances. They expressed the immense difficulties in judging whether a video had been edited or if it was a one-take recording, for example. Furthermore, instructors could not pick up wrong notes or stop the performance immediately as errors occurred. In face-to-face interactions, the instructor can circle wrong notes or mark the score immediately; once students complete the piece, the instructor then reviews all missing details followed by clear explanation and demonstration. In online teaching, faculty had to write down the note and correct the student only after playing.

The consequent disruptions in the rhythms of everyday teaching exacerbated confusions especially when students could not easily pick up the bar number or did not fully understand what mistake they made in the performance. For ensemble course, this problem is very clear and not all students are on the same standard or know the piece very well. For vocal, brass and woodwind students could not really feel or see how the instructor breathed and moved the mouth or adjusted the body energy to make the sound different. Similarly, piano students could not see how the instructor adjusted the pedal on different pieces. The dynamics of teaching and playing piano were not as precise as live person-to-person instruction.

These complications afflicted students in string and percussion acutely. In string instruction, students needed to see how the instructor demonstrated various bowing and playing skills on the right hand or left hand. In online teaching, faculty noted they were not be able to show all precise details to students. The instructor had to see how students move fingers and adjusted their muscle on the left hand to interpret music patterns, particularly high finger positions, vibrato, double stops or chords. With some very tiny finer movements on the right hand, teachers were not be able to see how students moved their fingers, as for example in spring bowing, the bowing would request good control of thumb, middle and little finger. For bow contact on dynamics changes, if the student had the problem, teachers could only judge it by watching the video and could not see the exactly problem.

Percussion students were not able to see how the instructor adjusted wrists and fingers to control different size of mallets. Students were not be able to practice at home. Not everyone could have access to all types of percussion instruments at home and could only practice with the iPad and learn how to control mallets designed for different percussions. Playing real instruments is very different from the playing on the practice board or virtual instrument particularly, the sound and the feeling of the instrument.

Conclusion

We conclude that the erosion of physical immediacy constitutes the main obstacle for translating the physical classroom into the digital classroom. This situation is especially acute in the teaching of music where all faculty noted that teaching of performance is an intimate endeavor where face-to-face proximity means no mediation by technical means. While all faculty agreed that as instruction got underway, they improved in their teaching techniques, many felt that a fully online course could never replace the intimacy that characterizes teacher-student pedagogy in music. The intimacy of sound production, the proximity and sheer physicality of instrumental performance, and the immediacy of teacher feedback could not be reproduced. Yet, all faculty agreed that innovative applications and software could conceivably begin to reduce that gap. They all emphasized that technical support and

training is pivotal for the success of online pedagogy. Some agreed with Rick Broene who said that, “what makes for effective online learning is exactly the same thing that makes for good in-classroom learning.” (https://www.bowdoin.edu/news/2020/07/fall-2020-how-to-achieve-continuity-in-teaching-and-learning.html). As Peter J. Perry (2020) has opined, most existing platforms are very useful for either instructors and students to prepare online lecture for history or theory classes. With the right applications and technical support, online teaching can become a useful tool for music instruction, but whether it can fully replace the physical classroom remains to be proven.

Acknowledgements

This research is sponsored by the Beijing Normal University-Hong Kong Baptist University United International College. Our debt of gratitude to all the faculty from the Music Performance Programme. Our special thanks to the Hong Kong-based pianist, Jacqueline Leung, for sharing valuable teaching experience with us.

References

Australian Institute of Music Sees Online Teaching as a New Frontier. (2020, June 21.) The National Tribune. https://www.nationaltribune.com.au/australian-institute-of-music-sees-online-teaching-as-a-new-frontier/

Bowman, J. (2014). *Online Learning in Music: Foundations, frameworks, and practices*. New York: Oxford University Press.

Fung, Y.H,. Li, C. H. and W. K. Cheung. Online Discussion Participation Prediction Using Non-negative Matrix Factorization. *2007 IEEE/WIC/ACM International Conferences on Web Intelligence and Intelligent Agent Technology*, Silicon Valley, CA, 2007, pp. 284-287, doi: 10.1109/WI-IATW.2007.116.

Garrison, D.R. (2011). *E-Learning in the 21st Century: A framework for research and practice*. 2nd. ed. New York: Routledge.

Johnson, Carol. (2017). Teaching music online: changing pedagogical approach when moving to the online environment. *London Review of Education*, 15:3, 439-456.

Tu , Chih-Hsiung. (2001) How Chinese Perceive Social Presence: An Examination of Interaction in Online Learning Environment. *Educational Media International*, 38:1, 45-60.

Palloff, R.M and Pratt, K. (2011). *The Excellent Online Instructor: Strategies for professional development*. San Francisco: Jossey-Bass.

Picciano, A.G. (2002). Beyond student perceptions: Issues of interaction, presence, and performance in an online course. *Journal of Asynchronous Learning Networks*, 6:1, 21-40.

Perry, P. J. (2020, April 2). *Online Learning in the Assemble Class: Use Technology and Distance Education to Teach Ensemble Class Remotely*. National Association for Music Education. https://nafme.org/online-learning-ensemble-class/

Porter, T. (2020, July 2). Fall 2020: *How to Achieve Continuity in Teaching and Learning.* Bowdoin. https://www.bowdoin.edu/news/2020/07/fall-2020-how-to-achieve-continuity-in-teaching-and-learning.html

Xie, X., Lin F. and Tao Zhang. (2001). Comparison between on- and -of-campus behavior and adaptability in online learning: A case from China. *Behaviour and Information Technology*, 20:4, 281-291.

Zhang, S., Zhao J. and W. Tan. Extending TAM for online learning systems: An intrinsic motivation perspective. *Tsinghua Science and Technology*, 13:3, 312-317.