THE TEACHER’S EXPERIENCE OF TEACHING LESSONS ONLINE

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# Table of Contents

ACKNOWLEDGEMENTS .................................................................................................................. 2

ABSTRACT ..................................................................................................................................... 4

INTRODUCTION ............................................................................................................................. 5

REVIEW OF LITERATURE .............................................................................................................. 8

METHOD

OVERVIEW AND PARTICIPANTS .................................................................................................... 16

LESSONS ......................................................................................................................................... 17

DATA COLLECTION ......................................................................................................................... 17

RESULTS .......................................................................................................................................... 19

LOGISTICS

SCHEDULING ................................................................................................................................... 19

TEACHING ENVIRONMENT ............................................................................................................ 21

INSTRUCTION

PREPARATION ................................................................................................................................... 22

MODELING AND FEEDBACK ........................................................................................................... 24

TECHNOLOGY ................................................................................................................................... 27

SUMMARY ......................................................................................................................................... 30

DISCUSSION ..................................................................................................................................... 31

REFERENCES ..................................................................................................................................... 35

APPENDICES

A. IRB FORM-PARENTAL CONSENT

B. IRB FORM- CHILD ASSENT FORM

C. JOURNAL TEMPLATE
Abstract

The purpose of this project was to examine various components of the teacher’s experience of teaching private lessons (one-on-one) through online videoconferencing software (Skype), by utilizing an action research approach. Participants were given four, 30-minute trumpet lessons over the course of four weeks. A teacher’s journal was maintained and a screen capture of all lessons was video recorded. The teacher’s journal and video recordings were analyzed to examine the role of the teacher in online private lessons. Findings suggest there is more up-front preparation prior to teaching the lesson, and that the sharing of music between teacher and student, and vice versa, is critical for optimal use of instructional time. Additionally, the lighting and camera angle impacted the teacher’s ability to diagnose mechanical problems in the participants’ playing, and automatically adjusting microphone levels made hearing dynamic contrast quite difficult. The convenience of teaching the online lessons was accompanied by a large amount of rescheduled lessons at the request of the participants. Ultimately, the findings suggest that is little difference between traditional face-to-face lessons and online lessons with the exception of less teacher modeling.
The Teacher’s Experience of Teaching Lessons Online

This project was designed as an action research study to examine various components of the teacher’s experience of teaching private lessons (one-on-one) through online videoconferencing software (Skype). The work specifically focused (1) on how preparations for online instruction differed from traditional lessons, (2) how the technology helped or hindered the teacher throughout the lesson, (3) how the teacher effectively gave the students feedback about their playing, and (4) whether or not the teacher was able to maintain a personal relationship with the students.

The notion of distance learning, which Ruippo (2003) suggests can be defined as “instructional delivery that does not constrain the student to be physically present in the same location as the instructor” (p. 1) is hardly new. For example, general education correspondence courses having existed in Finland for over one hundred years (Ruippo, 2003). Some research has suggested that “e-learning” using an asynchronous model can be an effective mode of delivery of instruction for music (Seddon, 2009b). The ease of uploading educational videos to video hosting sites has likely helped spread the asynchronous model of distance learning, so much so that even the United States Army Field Band has a series of educational videos and lessons available online, covering a wide-range of topics including basic instrument repair, flute fundamentals, the history of the French horn, and a series of online master classes for most instruments (The United States Army Field Band, n.d.). The New World Symphony, under the direction of Michael Tilson Thomas, launched a digital initiative in 2014 called MUSAIC, which is an online video library consisting of master classes, interviews, lessons, performances, and conferences, that has partnered with: Cleveland Institute of Music, Eastman School of Music, Manhattan School of Music, Royal Danish Academy of Music, San Francisco Conservatory of Music, and the University of Southern California, to name a few (“New World Symphony,”
Additionally, some educators believe so strongly in the idea of asynchronous distance learning, that there are some institutions of higher education that are providing entire college educations through online videoconferencing and video streaming, such as Indiana University-Purdue University’s Bachelor of Science in Music Technology degree (Kuzmich, 2013), or the University of Florida’s all online Master of Music in Music Education degree (University of Florida, 2015). It is worth noting however, that while a large benefit of asynchronous online learning is the ability for the student to learn at their own pace and respond to the material in their own way (Seddon, 2010), some participants in studies related to asynchronous e-learning have reported feeling isolated, and noted missing the interpersonal interaction (Koutsoupidou, 2014; Seddon, 2009a).

The question is not whether teachers and students should pursue online private lessons in music, but rather how does the teacher provide the best learning experience to their student online as there are multiple websites that provide the service of matching students to teachers, and a growing number of professional musicians that are offering lessons online utilizing a synchronous model. Additionally, there are numerous websites that offer high quality lessons and master classes (Kessel, 2013), such as www.takelessons.com, www.skypealesson.com, and www.wifimusicschool.com. Interestingly enough, the Wifi Music School does offer Skype lessons for conducting, and www.takelessons.com also offers lessons in 129 other subjects other than music.

The role of the lesson teacher itself is also worth examining, particularly in regards to how the teacher functions in the online environment. In traditional face-to-face lessons, Creech (2012) found that behavior patterns in lessons were seldom “pupil-led,” that teachers talked more than they provided scaffolding for student activity, and that the pace of lesson did not dictate the growth of the student. Colprit (2000) conducted a quantitative study observing the teaching of
Suzuki string teachers and found that effective teaching consists of: teacher verbalization (including information, directions, questioning, and feedback) and teacher modeling. Additionally, Hsieh (2003) suggested that students perform and learn better if they have a positive attitude toward their instructors, suggesting that the relationship between the student and teacher is critical to student achievement. Along similar lines, Averbach (2003) wrote that the relationship between teacher and student is so important that the music lesson can serve as a “stage on which life’s nonmusical challenges and dramas are acted out and resolved.” (p. 16)

While there is some literature that suggests online videoconference lessons are a viable substitute in the absence of traditional lessons (Dammers, 2009; Dye, 2007; Kessel, 2013; Koutsoupidou, 2014; Riley, 2009), there is little to no literature exploring the teaching experience of private instrumental instruction utilizing an online synchronous model. Additionally, online videoconferencing has already been used to teach general music classes to underprivileged students in Mexico and it was suggested that this is a feasible way to facilitate music learning to distant locations anywhere in the world. (Riley, 2009),

The findings of the present study could possibly serve as a guide to teachers that are considering offering an online option, assisting teachers already teaching lessons online that are experiencing difficulty teaching in their lessons, or are seeking to improve the quality of their lessons. The purpose of this project was to examine various components of the teacher’s experience of teaching private lessons (one-on-one) through online videoconferencing software (Skype), specific research questions included:

1. How does the planning and preparation process for teaching a lesson online differ from traditional approaches?
2. Does the current technology hinder the ability for the teacher to diagnose certain more general technical issues in the student’s playing, including embouchure, fingerings, hand position, articulation, and breathing?

3. Does the current technology hinder the ability for the teacher to accurately assess certain subtleties in the student’s playing such as dynamic contrast, and intonation?

4. Does the online format hinder the ability for the teacher to give effective feedback to the student to improve their playing?

5. Does the online format hinder the ability of the teacher to model playing for the student?

6. Does the online format hinder the ability of the teacher to maintain a personal connection to the student that is necessary to teach personal development lessons to the student, in both music and non-music related subject matter?

Review of Literature

There has been some research examining the feasibility of online videoconference music lessons, as well as numerous essays and articles from experts on the subject. Coyner & McCann, (2004) in a review of the initial use of distance learning at the University of Akron in general education classes, wrote that there were several potential benefits to delivering instruction including: convenience to the learner, higher critical thinking and problem solving skills. However, Martin (2005) offered the opinion that sustaining the interest of the student for periods longer than 10-15 minutes could be troublesome in online learning.

Mercer (2010) offered unique insight as an online music teacher, and discussed not whether or not videoconferencing should be used in the music room, but rather how it should be used. Mercer suggested the following ways to incorporate online videoconferencing: having
guest instructors, clinicians, professional development, performances from outside musicians, having absent/sick students still be involved in rehearsal, master classes, take lessons from professionals, and establishing a partnership with a distant school.

Ajero (2010) offered some professional insight as to why a teacher might want to begin offering private lessons through online videoconferencing. Potential reasons included: expanding your reach to potential students/gaining students, student or teacher relocation, and health concerns. Additionally, Ajero suggested that offering an online videoconference option also makes rescheduling an easier task, and can help the teacher avoid losing income as a result of cancelled lessons. Lastly, Ajero suggested that teachers should consider augmenting their online videoconference lessons with pre-recorded videos to make up for lost time when the Internet connection between the two parties is unreliable.

Ajero also suggests several pieces of technology to consider using in order to more effectively teach lessons online including: high speed Internet, a functioning webcam (which he points at his fingers for demonstration purposes with his piano students), and microphone as being essential to teaching through this medium. Ajero also suggested the use of Skype, as it is the most common videoconference software, and the use of MIDI instruments that can be connected over the Internet to compensate for low quality microphones that might not adequately inform the teacher of nuances that the student is performing.

Specifically addressing concerns of music distance learning, Criswell (2009) wrote that reasons a teacher might utilize online videoconferencing in music education include bringing music to students in remote areas or in schools that don’t have music programs, providing access to high quality teachers that live a great distance away, bringing guest speakers or performers to rehearsal without the cost or time commitment of travel, and having members of a small ensemble that can rehearse together despite living away from each other.
Criswell also listed several technical considerations that might limit the success of teaching in this manner, stating that both parties must having a computer, web camera, microphone, and high speed internet (specifically no lag time, upload bandwidth of at least 280k/sec and preferably over 500k/sec.), in addition to access to a videoconferencing software which might be blocked by school or district technology supervisors. Criswell also stated that teaching “at a distance” is quite different from teaching in person citing that identifying and fixing embouchure or posture problems, or delicate fine-tuning issues could be much more difficult.

Criswell also provided a few tips to successfully teaching in a “virtual environment,” such as using the videoconferencing software for social interactions prior to teaching with it to allow for familiarization, and the use of multiple webcams on the student’s side of the conversation, allowing for a close-up of the students face and a larger view of the student’s hands or body. Additionally, the author suggests the use of remote desktop sharing software might be beneficial, especially if the teacher is using musical notation software as part of the lesson.

Reed (2013), provided suggestions for creating an “online studio,” providing suggestions for both synchronous and asynchronous models, citing the recent global recession as a cause for the rapid growth in online music teaching. Reed stated that the first step in developing an “online studio” is to decide whether you want to use the synchronous model, asynchronous or possibly both, and also stated you should consider what your “competition” is using as you plan your own website.

According to Reed, benefits of the synchronous model include saving the time and travel expenses that would incur with traditional face-to-face lessons, in addition to added flexibility of maintaining an active studio despite your, or your students geographic locations. Reed also
stated that this model is very appealing to touring musicians, and the students that want to study with them. Reed also cited that the Manhattan School of Music utilizes this model, as does the New World Symphony, which has hired Yo-Yo Ma to teach master classes to its members from thousands of miles away.

The asynchronous model utilizes a highly functional web site that might host videos, photos, text, and graphics, providing a way for students to access a variety of resources at their convenience. Many musicians that maintain asynchronous model websites use a subscription-based model of generating revenue. The subscription system can work in two ways: a monthly/time-based subscription model that allows for unlimited access to material, or material based subscription (each video costs money to access). Whereas the available technology has allowed for teachers to create their own virtual studios with limited hassle using the synchronous model, teachers wishing to use the asynchronous model will likely need to hire a website developer. Additionally, posting a blog might also help to generate customers, however a new online teacher might also want to consider uploading videos to YouTube and taking advantage of search engine optimization.

Reed also briefly discussed some limitations of the internet, stating that the ideal candidate for Internet lessons are older students who already have a basic technical foundation on their instrument, and that it is not recommend trying to teach a beginner online. In using string instruments as a reference, the author states that it is harder to work on technique issues because you can’t reach out and physically adjust the student’s playing position. Additionally, your positioning, or the student’s positioning, can also be an issue because of the need to diagnose the student’s bowings, fingerings, and bow direction. Additionally, Reed suggested that students might be distracted by the “split screen” feature of most videoconferencing software, and that they should focus on the “small screen” (themselves) to improve posture.
Another limitation Reed mentions, is that the student and the teacher cannot play at the same time, although the teacher can get around this by sending a video of themselves ahead of time. Lastly, Reed wrote that some subtleties of sound are also lost when you listen to a student over videoconferencing and that there’s less of a personal connection.

Kessel (2013) wrote that the technology required to do so is so abundant has allowed more and more teachers to conduct lessons over broadband connections. The author also cites that are still challenges with the practical aspects of doing an online lesson: close up images, positioning of the camera, and sound quality issues. Fingering positions and tone quality might be hard to assess depending on the quality of the microphone and camera. Despite these concerns, Kessel wrote that, online lessons can be a wonderful addition to normal lessons, if not quite yet a replacement.

Ruippo (2003) stated that distance learning is easier for the student to adopt than the teacher, and that the opportunity to receive instruction in specific subjects, and the attraction of the technology itself can motivate students. Ruippo also suggested using the camera to guide the focus of the student, “e.g. on the guitar’s fretboard.” Specifically regarding the role of the teacher, Ruippo placed the emphasis of effectiveness on the teacher, also stating that both the student and teacher need training on working in an online environment. Additionally, Ruppio stated that arranging distance music learning is a challenge for music teachers, because they have little or no experience in the new pedagogical and technological environment.

Riley (2009) conducted a study exploring general classroom music teaching using nine pre-service music teachers in the United States, teaching to underprivileged children in Mexico via online videoconferencing. Data gathering for the study included research narrative, teacher reflections and student writings collected over a two-year period. While Riley did imply that
TEACHING EXPERIENCE OF ONLINE LESSONS

Videoconference teaching was viable, she also found that it was not possible to cover as much material in online videoconference learning as in face-to-face instruction.

Dye (2007) conducted a study exploring the feasibility of online videoconference lessons, using three pre-service music education majors to teach lessons to six middle school band students. Only one of the three educators had previous experience teaching lessons, and the teachers taught a total of 25 lessons to the three students for the study. Data for the study was obtained by reviewing video recordings of the lessons, and reviewing transcriptions of the lessons, in addition to open-ended interviews with all participants before, during, and after the study. Results of the study found that behavioral occurrences observed in this capacity were in alignment with traditional face-to-face lessons.

Additionally, Dye found that distance education elements identified in prior research remained consequential, such as: reliable technology/internet connection, familiarization with the software, instructional design, and participant expectations. Dye found the teachers to model playing less frequently than in prior investigations of live music lessons. Ultimately, Dye found that online videoconferencing offers promise in substitution of live applied musical instruction.

Brändström, Wiklund, & Lundström (2012) conducted a study using online videoconferencing to conduct both lessons and master classes. The master classes included several different instruments including violin, cello, French horn, vocals, and chamber music, totaling 11 master classes, lasting around three hours each. Data was gathered by researcher observation, and teacher and student interviews. The lessons portion of the study was conducted using an electric guitar teacher, teaching to three secondary school students. The lessons were 40-minutes long, and occurred once a month over a two year period. Semi-structured interviews and researcher observation of the lessons was utilized for data collection. Overall findings for the study is that teachers and students considered online teaching a positive experience, and the
students reported no major difference between online learning and face-to-face learning. However the researchers suggested that videoconference teaching is more intensive than face-to-face teaching for the student.

Dammers (2009) presented both data from previous studies that related to the topic of online videoconference lessons, as well as the findings of their own exploratory research study involving a trumpet professor and an eighth-grade trumpet student. Various previous studies have shown that students perform only between 45-57% of a music lesson, with the remainder of the time being taken up by other events, such as teacher feedback. The two participants for this study were chosen in part, because the researcher found them both to be “pleasant, patient and affable people who were not likely to be frustrated with technological glitches.” Additional pertinent information about the participants include: the student had never taken private lessons before, had played in band for a few years, and explored musical interests outside of trumpet/band class, and the teacher considered himself to have a limited technological background.

The case study was organized around two research questions: (a) is applied instrumental instruction feasible, and (b) what are the challenges, advantages, and considerations of teaching and learning in an online video instructional environment. The participants used affordable and readily available computers and webcams, and utilized headphones to avoid the microphone picking up sound from the computer’s speakers (to avoid an echo). Data was collected in multiple forms from the study including: interviews (before and after the study), video recordings, photographs, and field notes.

There were several informative findings as a result of this study, presenting both strengths and limitations of providing lessons in this manner. Dammers found there to be a
basic level of functionality to teaching in this manner, stating that there was minimal connectivity issues, they were able to pace the lesson at the same pace as a normal face-to-face lesson, and that the microphone quality was high enough for the teacher to provide an accurate assessment of the student’s playing. Additionally, Dammers wrote that besides convenience, delivery of instruction through online videoconferencing also allows for easy sharing of files and recordings, in addition to having an appealing novelty to study online. Dammers also presented several challenges that accompanied the online lessons, including a short delay in audio and video which the participants described as disorienting at first, which also made playing duets a non-option, and a lack of real relationship between student and teacher. Additionally, Dammers wrote that there was limited visual access to the player and their environment, which was also accompanied by a feeling of restrained movement to stay in the view of the camera. Ultimately, the author found that videoconferencing is functional, but is not equivalent to face-to-face instruction.

Method

Overview and Participants

The study took place in the fall of 2015 with four participants each receiving four, 30-minute sequential lessons utilizing Skype videoconferencing software. I served as the teacher and taught all lessons between 4:00 PM and 7:00 PM. All but one of the lessons were taught from my home residence in my designated home office, using an Apple iMac desktop computer (21.5 inch screen, manufactured in 2014), running OS X Yosemite (10.10.5), with a 2.7 GHz processor, 8 GB DDR3 Memory, and 1 TB SATA hard drive, utilizing Comcast Xfinity High Speed Wireless Internet (40 mpb/s). My home office provided a very clean appearance, with white walls in the background, and a singular poster hanging on the wall for a science-fiction television show. The one lesson I taught not from my home, was taught at the high school where
I am employed, in one of the practice rooms utilizing the school’s high-speed wireless (actual speed is unknown), an Apple MacBook Laptop (13 inch screen, manufactured in 2008), running OS X Mavericks (10.9.5), with a 2 GHz processor, 3 GB DDR3 Memory, and 160 GB SATA hard drive. The school’s practice room provided a very sterile environment, having all white painted cinderblock walls, and the room being nearly soundproof helped keep any extraneous noise from the adjacent band and choir rooms from being heard during the lesson.

The four participants varied in age from ages 14-16, and were at various stages in their own musical development: one student was a very advanced high school player whose focus was preparing honor band audition music with a larger goal of attending Juilliard in a few years, two different students were typical average freshmen and sophomore high school players that were seated in the middle of their trumpet sections in the second concert band at their respective schools, and the fourth student was a typical eighth grade student that has band just a few times a week after school. Additionally, two of the participants have studied privately with me for two years, and two of the students have never studied privately with anyone before. The material covered in each lesson was dictated by the needs and wants of the student, in addition to addressing the fundamental skills of the student in order to develop their skills as a trumpet player. Three of the four participants mentioned using PC laptops to run Skype for their lessons, and one student used an Apple iPad.

Lessons

The structure of the online lessons followed an identical layout that I use for face-to-face lessons. The sequence was as follows: (1) begin with relaxed conversation (to build rapport), (2) a warm-up consisting of mouthpiece playing (simple melodies such as London Bridge; Mary Had a Little Lamb), (3) lip slurs, and scales, (4) inquiring if the student had anything they felt they needed or wanted to work on, (5) moving on to method books, etudes, and or solo literature,
and (5) ending with a recap of practicing goals for week and more relaxed conversation as time allowed.

The literature used for each lesson varied by the needs of the student. The literature and method books used for this study are listed in Table 1:

Table 1

*Literature and Method Books*

<table>
<thead>
<tr>
<th>Student</th>
<th>Literature</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced high school</td>
<td><em>Snedecore Lyrical Etudes</em></td>
<td>Honor Band Auditions</td>
</tr>
<tr>
<td>Intermediate high school A</td>
<td><em>Arban’s Method</em></td>
<td>Double Tonguing</td>
</tr>
<tr>
<td>Intermediate high school B</td>
<td><em>Rubank Advanced Method, Vol. 1</em></td>
<td>Fundamental Skill Development</td>
</tr>
<tr>
<td>Middle school</td>
<td><em>Essential Elements, Book 2</em></td>
<td>Rudimentary Skill Acquisition</td>
</tr>
<tr>
<td></td>
<td><em>Essential Elements, Book 3</em></td>
<td></td>
</tr>
</tbody>
</table>

*Data Collection*

Data was gathered in two ways: the creation of a weekly journal for each lesson that I wrote prior to and at the end of the lesson or shortly after the end, and a careful review of a video recording of each lesson. Prior to teaching each lesson, I wrote notes in the journal as I planned what I would do with each student. Following each lesson I summarized what occurred in each lesson, and how the use of technology impacted the lesson. To ensure consistency, a journal template (Appendix C) was created for use in the study so that similar data could be collected from lesson to lesson. A sample of items maintained in the journals is displayed in Table 2:

Table 2

*Sample of Journal Items*

<table>
<thead>
<tr>
<th>Instruction</th>
<th>Technology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Layout of the lesson</td>
<td>Did the technology alter the layout?</td>
</tr>
<tr>
<td>Type of feedback given</td>
<td>Did the technology alter the feedback?</td>
</tr>
<tr>
<td>Did the student improve?</td>
<td>Did the technology hinder the teacher in any way?</td>
</tr>
<tr>
<td>Amount of preparation</td>
<td></td>
</tr>
</tbody>
</table>
The lessons were video recorded using Open Broadcast Software (OBS), software that was originally intended for use with live-streaming computer-video games. OBS allows the user to record everything that is occurring on a computer screen (including incoming and outbound audio). Upon setting up OBS for use, the user has the option of choosing whether to live-stream an event, or save a video recording of their session locally on their machine, with the latter being chosen for this study. This essentially allowed me to experience each lesson from the same perspective that I originally taught it, as it appeared on the computer screen, as many times as necessary to gather data.

Each lesson’s video recording was reviewed at least once, although most lessons were review two or three times, upon the completion of all lessons in the study, and was viewed alongside the journal entry for the lesson. This allowed me to experience each lesson from three different perspectives: the lesson itself as it happened in real-time, reviewing the journal entries that were completed after the lesson, and the video recordings of all of the lessons at the conclusion of the teaching portion of the study. While the journal entries were used to maintain a record of the general outline of the lesson and my initial reactions and feelings about the lesson, the video recordings were used to validate these initial reactions and feelings, in addition to providing a fresh look at each lesson to arrive at any new observations and/or conclusions. Additionally, while reviewing the video recordings a timeline was made for each lesson that marked each individual activity that occurred within the lesson, so that trends in instructional strategies could be identified. Additions and corrections were made to the journals as necessary while reviewing the video recordings.
Results

The themes that emerged from the analysis of the revised teacher journals and video recordings were categorized as (1) Logistics, which includes scheduling the lessons, and preparations for the lessons, and (2) Instruction, regarding lesson content, teaching strategies, and implications from the technology that was employed. These will be discussed in the following section.

Logistics

Scheduling.

While there were definite results for the specific research questions listed for this study, I would like to first examine the biggest learning piece from this study that was not a specific research question. According to Dammers (2009), one of the biggest advantages to online instruction is the convenience it offers to both the instructor and student. My experience verified this claim. The convenience of teaching the lessons through online videoconferencing was quite enjoyable. It allowed for both the teacher and student to dedicate less time out of their day to participate in the lesson than they would have for traditional face-to-face lessons, with no loss of time due to traveling to the lesson location, for either student or teacher. For instance instead of needing to drive to the school where I generally teach I was able to teach from my home, saving a total of 30 minutes of driving time. Of course the benefit of negating travel time is not exclusive to the online lesson teacher; one of the participants in this study specifically mentioned how much they appreciated not driving 45 minutes (one-way) to arrive at my public school for lessons. It is also worth noting that because Skype displays the running time that you have been videoconferencing with someone on the screen, making it very easy to keep track of how long the lesson duration. My experience was this small feature of Skype allowed me to keep the
lessons generally close to the same length; twelve of the fifteen lessons that were taught were between 28 and 31 minutes long, with three outliers being 33, 35, and 37 minutes long.

Additionally, the convenience of teaching a Skype lesson allowed for lessons to occur when they normally would not have been able to. For instance, one of the lessons occurred on a particularly hectic day at my public school consisting of a school-wide tailgate/food market as a prelude to our Friday night Homecoming football game; the entire property of my school was packed with the community from the time school ended until the football game concluded several hours later. Additionally, my responsibilities as a high school marching band director on a performance day take up a great deal of time and energy. In a normal setting I would have cancelled a traditional face-to-face lesson, however thanks to the convenience of the online lesson format I was able to teach the lesson as part of this study, needing only a couple minutes ahead of time to set-up a laptop in one of the practice rooms at my school. This was quite the learning experience; teaching lessons via online videoconferencing isn’t just teaching from a distance, it’s mobile teaching.

The ability for the teacher to offer lessons from wherever they are is a tremendous advantage over traditional face-to-face lessons; there is no need to postpone or reschedule lessons because the teacher and student won’t be in the same location. This gives the teacher the freedom to travel or accept paid gigs they normally wouldn’t have, so long as there is the necessary amount of time for the lessons to occur, then the teacher can teach a lesson from anywhere with a internet connection. Additionally, this idea of mobile teaching isn’t limited to just the teacher. One of the student’s in the study expressed interest in continuing Skype lessons in the summer, when the student lives with his other parent in another part of the country. This idea is only compounded by how readily available the technology to have a videoconference
lesson is; Skype has mobile apps for smartphones and tablets, and many Apple products come with FaceTime, the Apple brand’s equivalent to Skype.

Unfortunately, the biggest selling point of the online lessons (convenience) is also one of the biggest drawbacks. Of the 15 lessons that were taught for this study, 8 of them were rescheduled from the previously agreed upon time of the lesson for that particular week, and this doesn’t include the single time I had to reschedule due to technological difficulties. Not only were lesson times changing on a weekly basis for the convenience of the student, but also the students were rescheduling what was already agreed upon. Additionally, one student needed to reschedule so many times that I was unable to teach the four lessons as outlined in the methods portion of the study due to time constraints.

**Teaching Environment.**

One final consideration in regards to the convenience of teaching in this online setting is the forfeiture of control of the learning environment. With the exception of the single lesson I taught from school, all lessons were taught from my residence, and each student received each lesson in their residence. This meant that the lessons were at the whims of outside influences that are common in the residence of myself and that of my students; one of the lessons was interrupted by a persistent knock (and barking dogs) at my front door, and in four different lessons with two different students younger siblings interrupted the lesson, meaning that 5 of the 15 lessons taught had some sort of interruption to them.

Overall, my experience regarding logistics in the online teaching environment was a positive one. Despite the frustration of scheduling, and rescheduling over 50% of the lessons, it was still quite easy to facilitate the lessons on most days, due to the convenience of teaching the lesson wherever I was; I simply needed 30-minutes to teach the lesson. While five of lessons did have interruptions worth noting in the journals, none of the interruptions were so severe that the
lesson needed to be cancelled. I would not hesitate to teach another lesson online as a result of logistical concerns.

**Instruction**

**Preparation.**

Coyner and McCann (2004) offered the opinion that online teaching requires more preparation than traditional teaching. My experience validated this, especially with regard to the students having printed music in hand for the lesson. In one instance the student had not purchased the book prior to the lesson. In another instance, I had sent music to the student electronically, but the student did not open and print it prior to the lesson. This necessitated a complete change in the plan for the lesson. Had these lessons been in a traditional face-to-face setting, I could have handed the music to the student or had they student play from my copy and the established plan could have been followed.

There were two lessons with two different students where they did not obtain the music for their lesson ahead of time, resulting in one student attempting to play the provided music from their computer screen (this didn’t go well), and the other lesson resulting in very little growth from the lesson as the student did not go purchase the new method book, like we had agreed upon them doing during the previous lesson. This was different from traditional face-to-face lessons in that in both of these instances the student was essentially unprepared for the lesson, as they did not have access to the music that they needed. Had we been meeting face-to-face we would have been able to continue with a regular lesson plan utilizing my copies of the music.

Additionally, not having access to music the student needed to work on required creative solutions during a lesson. One student brought music they wanted to work on, as they had a solo in a performance that was happening within the next week. Unfortunately, the student did not let
me know about this prior to the lesson, and did not scan and email the music to me. Therefore, I was unable to see the notation from which the student was playing. While definitely not an ideal way of working, the solution in this particular situation was for the student to hold the music up to the camera, and I took a “screen shot” of the music. While this did allow for the student and I to work on the music during the lesson, it wasn’t ideal for a variety of reasons. Quoting the journal entry from this lesson, “I couldn’t see all of the music clearly, and some notes were so blurry I had to ask the student what the notes and rhythms were; is that an ‘a;’ are those sixteenth notes?” Although the student did improve on the solo as a result of our work in the lesson, it was far from being an efficient use of our time, and I question if the student could have improved more if we had worked on this in-person.

This also highlights a limitation of the technology, which is not having control over what the student is writing in their music. In a traditional face-to-face lesson, I am frequently writing in the student’s music, whether it is marking a reminder accidental in front of a note, indicating where to breathe, or circling dynamic or tempo changes, I always have a pencil on the music stand during a lesson. I believe that the teacher marking a student’s music for them is important, as the teacher is not just writing in the student’s music for them, they are modeling for the student how to mark their music. When teaching the lessons over Skype, I had to either tell the students to mark in their music something they missed, or asking if they had already marked the music “did you mark the ritardando?” This implies that extra consideration must be taken when prompting students to mark their music: the teacher must be specific in their instructions about what to mark and how to mark it.

Lastly, it became very evident after the second week of the lessons that I needed to maintain some sort of log or journal for each student (different than the journal for the study) in which I could record the student’s assignments in. In a traditional lesson I would mark the
assignments in the student’s book(s), and then know the following lesson what the assignments were. Without having access to the same music that the student was using, the lessons during week two of the study were filled with asking the students, “what else do we have to work on,” rather than guiding the student as to what was coming next.

**Modeling and Feedback.**

Upon reviewing the video recordings of the lessons it was apparent that actual teacher modeling on the instrument was uncommon, with only 15 total instances of modeling on the trumpet having occurred throughout the duration of the study, out of 42 total times of teacher modeling. This is alignment with existing literature (Dye, 2007). Other instances of modeling included singing, counting and/or saying rhythms, demonstrating breathing, and mouthpiece playing. This action was an unintentional behavior from teaching online; I did not set out to model less than I normally would have, it is something that happened naturally. Because this was an unintentional behavior, I can only speculate the reasoning for why this might have happened: during each Skype lesson my trumpet was located on my trumpet stand on the floor, right next to the chair that I was seated in. In a traditional face-to-face lesson I would be standing (not sitting) holding my instrument in one hand, making the instrument more accessible to model with. Instead of modeling on the trumpet, I utilized a lot of singing to model ideas, and frequently used analogies to bring about change in a student’s playing. This resulted in lots of repetitions for the student, equating to a lot of playing time for the student in each lesson. Quoting two journal entries: “a lot of student playing at the beginning of the lesson with very little feedback; we covered a lot of material this lesson.” This is supported by existing literature (Brändström, Wiklund, & Lundström (2012) that states online lessons are more intense for the student than traditional lessons.
Additionally, there were no instances of attempting to have the student play along while I played, as existing literature has found this to be impossible due to technological constraints, namely Internet speeds causing a delay in transmission (Dammers, 2009). This was a conscious decision I made for this study, as I normally do place an emphasis on playing duets with my students in traditional face-to-face lessons. Knowing that Reed (2013) suggested a work-around of pre-recording the teacher’s part of the duet and sending it to the student ahead of time, I still chose to not pursue playing duets in these lessons because it was my first attempt of teaching lessons via Skype. I can however say, that I would not hesitate in trying to include duets in future Skype lessons.

On rare occasions, however, I did have students “finger along” while I played, and had the students play along at a given tempo that I provided (metronome, finger snapping, clapping). This did prove to be difficult, as there was a very apparent time delay between providing the metronomic beat source for the student, and when the student heard it and responded to it. The end result was difficulty for me to provide a steady tempo for the student, as a result of hearing the student not playing in “real-time” with the tempo I was providing. Quoting a journal entry, “There had to be close to a two-second delay between when I was clapping and when they played along. This meant I had to maintain a steady beat despite that what I was hearing did not line up with my clapping.” As an adjustment to this learning experience, rather than having the students play along with my clapping, I would start a metronome for the student to hear the tempo, and then turn off the metronome to eliminate any time delay the student might be hearing. It is also worth noting that starting and stopping a metronome allows the student the opportunity to develop a sense of steady tempo, rather than relying on the instructor or metronome to provide it.
Additionally, upon reviewing the video recordings I can confidently say that the kind of feedback provided to the students, and consequently the changes in their playing, did not change as a result of online delivery of instruction. With exception to less teacher modeling on the instrument, the kind of feedback that was given to the student was very similar to I would give in a traditional face-to-face lesson. Quoting several different journal entries, the following comments occurred frequently: “Let’s try it again, but slower. Did you mark the wrong note? Double-check your key signature. What would you say about your performance just now? Try it again, but with more air. Fill up your room with sound.”

Lastly, the online delivery of instruction did not hinder the ability for the teacher to develop or maintain a personal relationship with the students in this study. All lessons started and ended with casual discussion of varying topic, sometimes related to music and sometimes not. This is in contrast to some existing literature that states relationships are harder to create and maintain through online videoconferencing (Dammers, 2009). However, it is worth noting that in the single lesson where I felt I was particularly harsh on a student for not practicing, I wrote in the journal (the student’s second Skype lesson), “I don’t think this student would work well with online instruction on a regular basis…because the Skype lessons do feel less impersonal than traditional face-to-face lessons, I think this student would have quit playing trumpet had he started with me in this format. I’m glad that I am only a part-time lesson teacher…if this was my sole source of income I would be much more worried about losing students because of a lack of connection between teacher and student.”

**Technology.**

While Skype served as a satisfactory vehicle for allowing me to diagnose most problems in student playing that occurred during the lessons, there were problems with the lighting and camera angle limiting my ability to diagnose mechanical problems in a student’s playing.
Despite taking several minutes in the first lesson with each student to address lighting and camera angles, including two different students that needed to bring additional lamps to the rooms they were in, there were still many instances of not being able to see a student’s embouchure or face clearly. As a result, there was one student that should have received guidance on adjusting their embouchure in our first lesson together, however I was uncomfortable with making an embouchure adjustment knowing that I couldn’t fully see how the student was playing. Additionally, there was another lesson with a different student where we spent close to 5-minutes of the 30-minute lesson trying to figure out how to adjust their music stand so they could play with better posture. The conclusion we arrived at after our 5-minutes of music stand investigating, was that the music stand was not adjustable so the student continued playing with poor posture, not just for this lesson, but also for all four lessons they received. It is also worth noting however, that had this student not participated in the Skype lessons with me, I would not have had the insight of knowing he played with poor posture at home because of the music stand.

The current technology did in fact hinder the ability to accurately assess subtleties in the students’ playing. It appears that Skype, or perhaps the hardware settings on my computer and/or the computers of the students, has an auto-adjusting microphone setting that limited the dynamic range the students could demonstrate; if the student played loud, the microphone would drastically turn down the volume level. This resulted in hearing students play at one volume level, despite the fact they might very well have been playing a great deal of dynamic contrast. Additionally, while the auto-adjusting microphone level was quick to respond to louder dynamic levels, it was slow to bring the microphone level back up to a “normal” level. This resulted in being unable to hear the student speak when asking them about their performance immediately after they played. This phenomenon was observed with all students, regardless of what kind of
computer (laptop or Desktop, Mac or PC, or iPad) the student was using. There was very limited talk about intonation, which was only addressed by instructing the students to use their 3rd-Valve slide on notes that require the use of this slide (Low D, and C# on the trumpet). However, the lack of discussion regarding intonation is likely due to the fact that there was no ensemble playing in any of the lessons.

Perhaps the most pertinent technological component for the success of an online videoconference lesson is a reliable high-speed Internet connection. While the vast majority of lessons did not have Internet connection issues, there were two lessons that were greatly impacted. Unfortunately, both issues occurred during the first Skype lesson with two different students. With one student my Internet connection “went out” at the exact moment that the lesson was supposed to begin. My Internet connection was lost for over an hour, and the student and I were unable to find a time to reschedule the lesson that day. The other issue occurred when a different student’s Internet connection slowed down so much that we lost video capability, but made our way through the lesson with an audio communication only. Unfortunately, the connection slowed down even further after we had established an audio only lesson, that the student’s playing and any feedback or conversation between the student and myself became very chopped, and incomprehensible. This particular lesson lasted the full 30-minutes only because of this study; otherwise, I would have ended the lesson soon after we encountered the technical difficulties. This also led to establishing the protocol with the students that I would initiate the videoconference at the beginning of each lesson, as well as in the event of a disconnect.

Summarizing, my experience with technology employed in the lessons was a positive one. Despite not having access the to full dynamic range a student might be using, or possibly not having the best view of a student’s embouchure, it was easy to forget that the lesson was happening on Skype. There came a point in each lesson, where it was not an online music
lesson, but rather just a lesson with a teacher and a student. Lastly, while the lighting and the camera angle was a source of concern for these lessons, I would point out that in the two lessons I mentioned not being able to see the student well, my comment was met with quick action from the student and their parents to find additional lighting, and that the additional lighting became a staple in each of lessons.

Summary
To summarize my short experience in teaching trumpet lessons on-line to 4 students I will answer the 6 research questions.

1. **How does the planning and preparation process for teaching a lesson online differ from traditional approaches?**

   I found that on-line teaching requires more planning than teaching face-to-face lessons. First, it requires keeping a precise log of the material assigned to each student, as the teacher does not have access to the printed materials from which the student is working. Marking assignments in the student's book is not an option. Secondly, new material must be sent to the student prior to each lesson because the teacher cannot hand a book or music page to the student within the lesson.

2. **Does the current technology hinder the ability for the teacher to diagnose certain more general technical issues in the student’s playing, including embouchure, fingerings, hand position, articulation, and breathing?**

   I found that there were some limitations on my ability to diagnose technical issues in student's playing. These were primarily due to the camera angles and lighting in the venue in which the student was working. I believe that these problems
could be overcome with different equipment and some time to experiment with lighting and camera placement.

3. **Does the current technology hinder the ability for the teacher to accurately assess certain subtleties in the student’s playing such as dynamic contrast, and intonation?**

I found it difficult to assess dynamic contrast as a result of the auto-adjusting microphone level. The only instances of addressing intonation were the result of improper use of the mechanics of the instrument’s tuning slides.

4. **Does the online format hinder the ability for the teacher to give effective feedback to the student to improve their playing?**

I found the feedback I gave to the students to be in alignment with the feedback I would have given in traditional face-to-face lessons.

5. **Does the online format hinder the ability of the teacher to model playing for the student?**

While the technology did not hinder my ability to model for the students, the amount of modeling I did do low enough to be of concern.

6. **Does the online format hinder the ability of the teacher to maintain a personal connection to the student that is necessary to teach personal development lessons to the student, in both music and non-music related subject matter?**

I found that maintaining a personal connection to the student was just as easy to do in the online environment as it is in traditional face-to-face lessons.
Discussion

Several of the findings in the study are open to speculation as a result of the small sample size of four participants, and only 16 lessons making up this study. For instance, while rescheduling 8 out of the 15 lessons for different lessons times each week was very frustrating, this is more realistically a reflection of the schedules of the four participants in this particular study, during this particular time of the school year (early Fall Semester, each student participates in Marching Band after school), than it is a reflection of online private lessons. This is not to say that the convenience of the lesson itself (the student being at home), and my willingness to reschedule the lesson out of necessity for the study did not play into the role of how frequently lessons were rescheduled. It is also worth noting that two of the participants in the study were not normal lesson students of mine, and perhaps not having a pre-existing routine of attending private lessons could also be a factor.

Additionally, the lack of dynamic contrast that I observed teaching the Skype lessons might be exclusive to trumpets, and other characteristically loud instruments; because the microphone level automatically adjusted regardless of the type of device the student was using, it is safe to assume that the problem was the volume of the instrument. However, this does not mean that instruments that stereotypically play on the softer side might be able to convey a greater dynamic range, as the limits of the automatically adjusting microphones are unknown at this time.

One important role for a teacher in “private lessons” is the selection of repertoire, technical exercises, and other musical materials for the student. In a traditional lesson the teacher often diagnosis a particular problem a student is having and immediately pulls printed music from a file and presents it to the student. Such spontaneous selection and assigning materials cannot occur in on-line lessons…at least with the limited technology available for the lessons
taught in this project. On two occasions I was able to select music, scan it and send it to the student and have the student print the music prior to the lesson. However, in most instances I was limited to the music in the book I had asked the student to purchase, or to music I knew was in the student’s folder.

When teaching online, the teacher must more carefully select a method book and repertoire materials for each student and the student must have a more materials immediately available than in traditional lessons because additional music cannot be easily delivered to the student.

Monitoring student progress from week to week is another important role for a teacher. Many teachers do this by simply writing the date a particular exercise or song is assigned on a page in the students’ book. When a student comes for a lesson, the teacher glances over the assigned material and selects portions to be heard. In the on-line lessons I could not see the student’s book so was lacking a record of what material had been assigned and could not easily choose portions of the assignment to hear in the lesson.

When teaching online the teacher must maintain a detailed log of material assigned to each student and the teacher must have a copy of all music assigned because within the lesson the teacher cannot view the materials from which the student is playing.

The most alarming part of this study was finding myself questioning my ethics as an educator. How long should you let a lesson continue if the Internet connection is so poor you can’t actually evaluate the student’s playing? Do you ignore the fact that the student needs an embouchure change, because you can’t fully see their face, knowing that is what the student needs most? Is there a limit as to where you will teach the lesson; why not teach a lesson from a coffee shop? Is the student not playing duets because of technological limitations, or because the teacher doesn’t want to spend the extra time recording a part for the student prior to the lesson?
Of course, had I been paid for teaching these lessons this would have only compounded these issues.

As a result of this study, I have several recommendations for future to help broaden the scope of existing literature regarding online music instruction. A study evaluating the ethics of online teaching would be very beneficial given the ethical questions raised in this study. Additionally, the counterpart to this study would naturally be the evaluation of the student experience of online music learning, and could prove very beneficial for music educators as they develop online teaching practices. Lastly, a study examining the feasibility of instruction for different types of musical domains, such as composition or improvisation, through online instruction is suggested as it may prove to be very beneficial for the field of music education. As technology continues to play a larger role in education in general, more research should be done regarding online instruction so that the teaching practices of music educators continues to evolve to be as purposeful as possible.
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TEACHING EXPERIENCE OF ONLINE LESSONS


   doi:10.1177/0022429410369226


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APPENDIX A
IRB FORM- PARENTAL CONSENT

Dear Parent/Guardian,

I am a graduate student in the Department of Music Education at the University of Florida, conducting research on the teacher’s experience of teaching online music lessons. The purpose of this study is to explore how a teacher changes the way they teach, interact with students, and feel about teaching private music lessons online, using Skype. The results of the study may help music teachers better understand how teaching is different in an online setting, and will help them to design instructional practices accordingly. These results may not directly help your child today, but may benefit future students. With your permission, I would like to ask your child to volunteer for this research.

Should you and your child choose to participate in this study, your child will have a weekly, 30-minute private music lesson, that occurs online using Skype, for four consecutive weeks (Total of four, 30-minute lessons). Because the music lessons will occur online using Skype software, your student has the choice of picking the location of their lesson wherever they feel most comfortable, although a fast, reliable internet connection will be necessary for optimal use with Skype. The four consecutive music lessons will start in the month of September. With your permission, your child will be videotaped during the instructional period using screen-capturing software, so I can review what I said and did during the music lesson. The video recordings will be accessible only to myself, as well as my advisors for verification purposes. At the end of the study, the recordings will be deleted. Your child’s identity will be kept confidential to the extent provided by law, and their names will be replaced with a coded number. Results will only be reported from the teacher’s perspective, about my experiences teaching the lesson. Participation or non-participation in this study will not affect the children’s grades or placement in any programs.

You and your child have the right to withdraw consent for your child’s participation at any time without consequence. There are no known risks associated with participation in this study. While no compensation is offered for participation, the music lessons will be offered free-of-charge, and your child will have the opportunity to learn from a professional music educator. Results of this study will be available in December upon request. If you have any questions about this research protocol, please contact me at 719-233-4874 or my faculty supervisor, Dr. Thompson, at 904-261-2648. Questions or concerns about your child’s rights as a research participant may be directed to the IRB02 office, University of Florida, Box 112250, Gainesville, FL 32611, (352) 392-0433.

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For Use Until September 9, 2016
APPENDIX B
IRB FORM- CHILD ASSENT FORM

Child Assent Form

Hello __________. My name is Sean Hadding and I am a student at the University of Florida. I am trying to learn about teaching private music lessons online. I'd like to know how teaching a private music lesson online changes the way a teacher thinks, plans for the lesson, and how a teacher feels when teaching online. This study is really about me, but a teacher can't teach without students.

I will be working with a few students, teaching trumpet lessons online, using Skype. If you decide to participate, you will be asked to have four, 30-minute private lessons with me, meeting online once each week for a lesson. Each week I'll listen to you play trumpet, provide you with some tips about how to play your trumpet better, and ask you to practice certain songs or exercises for me to hear the following week.

There are no known risks to participating in this study, and most students actually enjoy the taking private lessons. You do not have to be in this study if you don't want to and you can quit the study at any time. Other than my teacher, Dr. Thompson, and myself, no one will know how well you play your instrument, what you do or say, or how much you did or didn't improve throughout the four lessons. Neither other students who are in the study nor other teachers will know that you are participating. Nothing that I write in the final report of the study will enable readers to know that you were one of the participants. If you do not want to do an activity, or exercise that I ask you to do, you don't have to do it. I also want you to know that whatever you decide, this will not affect your grade in band class. Your [parent/guardian] said it would be OK for you to participate. Would you be willing to participate in this study?

__________________________________________  __________________________
Your Signature                              Date

__________________________________________  __________________________
Signature of Researcher                     Date

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APPENDIX C
JOURNAL TEMPLATE

Student Name:                        Date:                        Lesson No.

Online Lesson Teacher Journal

• Preparation for Lesson:

• Goals for the lesson:

• Layout of the Lesson:

• Did the Technology alter the layout of the lesson?

• What kind of feedback was given?

• Did the feedback result in a positive change in the student's playing?

• Did the teacher alter the kind of feedback given as a result of the technology?

• Did the technology limit the teacher's ability to evaluate the student's playing?

• Did the technology limit the teacher's ability to diagnose mechanical/technical problems with the student's playing?

• Non-musical Personal Growth

• General Thoughts and Comments

• In the next lesson: