Pedagogical Approaches in the Virtual Beginning Orchestra Classroom: Best Digital Resources for the Beginning Virtual Orchestra Clasroom

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Abstract

This study aims to answer the research question: what are the best digital tools for teaching beginning string players in a fully virtual format? During the COVID-19 pandemic, educators across the world found themselves teaching in either a fully virtual or hybrid classroom. This thesis discusses previous research into digital tools available to string educators, remote and distance learning, and elementary string education. This research study administered a survey to string educators in the United States and internationally. Mixed-methods data analysis was used to review the data from the survey. This study concludes with a discussion of the findings from the survey and several main takeaways from this research study.

Introduction

The Covid-19 pandemic has forced many public-school teachers to teach in either a fully virtual or hybrid model format for the 2020-2021 school year. I wanted to study this topic further to help myself and other string educators (who are starting string players in a fully virtual format) navigate the new digital classrooms many of us have found ourselves teaching in during the COVID-19 pandemic. Music education and instrument instruction can be particularly challenging subjects to teach in a virtual format, especially string instruments. As a string teacher myself, I feel it is important for our field to study what digital resources are out there that may or may not be working for string educators and compile a report to share with string educators to better the field. Overall, I hope my readers might discover digital tools to help them develop more effective digital teaching pedagogies and improve their students' musicianship skills.

Process and Participants

With the closure of public schools in the spring of 2020 due to the COVID-19 pandemic, many string educators, including myself, found ourselves having to convert our classrooms and learning outcomes into a fully virtual format overnight. With the continuation of shutdowns or hybrid learning models into the fall, many string teachers still found themselves teaching virtually either in part or fully. String educators were presented with the challenge of finding the best digital tools to teach very physical and kinesthetic instruments in a virtual setting with little to no professional development in doing so. Because of these hurdles and lack of professional development, I knew I wanted to survey fellow string educators about the current digital tools they use in their classrooms. I also wanted to find out what non-music digital tools string educators were using, such as different learning management systems. My participants were selected using purposeful sampling. "This involves identifying and selecting individuals or groups of individuals that are especially knowledgeable about or experienced with a phenomenon of interest" (Palinkas et al., 2013). Because I was trying to understand digital tools in the string classroom, I used this type of sampling typical of educational research in a specific discipline. To help answer questions about digital tools for string teaching, I needed music educators, and in addition, these music teachers needed to teach orchestra.

Methods

Mixed Methods Research

This study uses Mixed Methods Research. Mixed Methods Research "is the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e. g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration" (Schoonenboom & Johnson, 2017). By using mixed methods research, I was able to collect both qualitative and quantitative data through my survey. I was able to focus on asking not only questions about the digital tools I currently know about but was able to ask string educators to describe digital tools they use I may not know about yet. The survey completed by my participants included questions where the had to select digital tools they heard of already, rate the digital tools they currently use, and write in their own words about the digital tools they use in their orchestra classrooms that were not already listed.

Data Collection

My research process required me to survey music educators, string educators specifically. These participants had to be knowledgeable about the orchestra classroom digital tools that I was researching. I collected emails for teachers from school district websites and then housed this information in an *Excel* spreadsheet which I kept on a flash drive that was locked in my office when not in use. I used these email addresses to send an introductory email request within which they could click the link to take the research survey. The survey was created on *Microsoft Forms* through my University of Wisconsin -Stevens Point student account. All survey results were password protected and housed on my *Microsoft Office OneDrive* account attached to my student email address. I sent a reminder email two weeks after the initial email. When I did not receive enough survey responses from the emails sent, I posted the survey with the email script on the Facebook group School Orchestra and String Teachers.

Approach to Analysis

My data analysis plan included both qualitative and quantitative analysis because my research employed mixed method design. For my qualitative portion of my analysis, I used coding, which Charmaz (2006, pg. 43) described as "Coding is about 'naming segments of data with a label that simultaneously categorizes, summarizes, and accounts for each piece of data." For the quantitative analysis portion of the study, I used descriptive statistics to analyze the data from questions where participants were asked to indicate if they had heard of certain digital tools and then to rate those digitals tools.

Implications

❖ We need each other as string and music education professionals to help each other problem solve fully virtual teaching and that not one teacher has all the answers.
❖ We need to make sure we are being diligent about the digital tools we use in our classroom, making sure they serve the need to meet student outcomes.
❖ The need for professional development specific to music educators.
❖ Future research and development in developing digital tools for the string/music classroom needs to take place for digital tools to best serve the string educator and their classroom.

Results

The survey I created and conducted was divided into two sections: 1) Synchronous Teaching and Learning Tools and 2) Asynchronous Teaching and Learning Tools. Each section consisted of both qualitative and quantitative questions. There were twenty-four (24) questions in total, with fourteen (14) of the questions being quantitative and ten (10) of the questions being qualitative in nature. Overall, thirty-five (35) string educators responded to my survey and took, on average, fourteen minutes and forty-three seconds (14:43) to complete the survey questions.

In looking through the findings from my data analysis, there were several themes that presented themselves. The following themes became evident in my data: 1) Frustration with synchronous teaching through video conferencing technology, 2) curriculum impacts of virtual teaching and learning, and 3) asynchronous teaching and learning in the string classroom.

Discussion and Takeaways

1. *Find positives in the experience of teaching fully virtual that you can use to enhance your teaching going forward into the future.* Many survey participants mentioned as a positive the resources available to students that they created. While we as string educators may have devoted hours to creating videos now, as our world slowly gets back to normal, we can continue to use these videos and resources for years to come as supplemental resources available on our LMS.
2. *Establish virtual classroom norms just like you would in a physical classroom.* Set expectations for synchronous learning on video conferencing (ex. cameras and microphones on), and teach students how to use your LMS.
3. *Use the Technological, Pedagogical, and Content Knowledge (TPACK) model to help you decide what digital tools work best for your classroom and your student outcomes.* Technology and digital tools will always be evolving, and it is up to us as educators to decide what will help our students achieve their outcomes best, and not just use new technology for the sake of using technology. Use the questions that Bauer (2020) states in chapter two to guide your decision making about digital tools.
4. *Join a community of fellow educators if you aren't already.* One of my personal takeaways from this research was the importance of collaborating and working with other music and string educators to problem solve and get new ideas for your classroom. Many of the survey responses for digital tools suggested were tools I had never heard of and are ones I will be looking into to see if they would work in my classroom. Since joining and posting my survey to the School Orchestra and String Teachers Facebook group, I've also picked up some great ideas for my classroom. Community is very important, but especially so in times when we need a little extra help.

Contact

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